

## MOSQUITO STUDIES (Diptera, Culicidae)

### XXV. MOSQUITOES ORIGINALLY DESCRIBED

#### FROM BRAZIL<sup>1</sup>

By

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This is the fifth in a series of papers providing information on the source and location of the original type material of mosquitoes described from the Americas (Belkin, Schick and Heinemann, 1965, 1966, 1968; Peters, 1968). A sixth paper, with corrections and additions up to the end of 1970 for the entire series, is in preparation. In addition to the species originally described from Brazil, the present paper includes all the species originally described from South America without indication of the country of origin; the type localities of all of these are here restricted to localities in Brazil. We are greatly indebted to the following individuals for assistance to one of us (JNB) in locating type material in various institutions and for other courtesies: T.H.G. Aitken, R.R. Correa, L.M. Deane, J.P. Duret, O.P. Forattini, H. de Souza Lopes, B. Lutz, S. de Oliveira, E.X. Rabello, L.E. Rozeboom, A. Stone and L.P. Travassos. We also thank Claire M. Price for the painstaking preparation of the copy for lithoprinting.

For explanation of the arrangement and method of presentation in the sections on **Nominal Taxa** and **Localities**, the first paper of the series should be consulted (Belkin, Schick and Heinemann, 1965). The nominal taxa described up to the end of 1969 are included. For the subfamily (family, auct.) Culicinae the listing follows the taxonomic order and interpretation of the world catalog as modified by the supplements (Stone, Knight & Starcke, 1959; Stone, 1961, 1963, 1967, 1970); a few additional changes in synonymy are indicated. The subfamilies (families, auct.) Chaoborinae and Dixinae follow, with the taxonomic interpretation adopted by Stone (1966a, 1966b). For the localities, we have used as standard the gazetteer of Brazil prepared by U.S. Board on Geographic Names (1963), except for the elimination of all diacritic marks, accents and so on.

**Lectotype designations** are made here for the first time for several species without previously designated holotype or lectotype; for the procedure followed see Belkin (1968:2). We have also designated **restricted type localities** for the majority of species without originally specified locality. In case the locality given was Rio de Janeiro, Para or Bahia we have interpreted it to mean the city of Rio de Janeiro

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(Guanabara), Belem (Para) and Salvador (Bahia) respectively. For species described from Brazil or South America without specified locality, we have been guided in designating a locality by the source of other species described by the author in question as well as by the known distribution of the species as currently interpreted. In complex cases, an explanation is given in the section on **Authors**.

The section on **Authors** provides an index to the nominal species described by every author and the location of the type material of these species. Discussions of special problems relevant to the determination of the type material and type localities are also given.

In the section on **Depositories** is an alphabetical list of institutions abbreviated as in the world catalog (Stone, Knight and Starcke, 1959); a few institutions have been added. This section provides an index to the type material contained in each institution and, in a few instances, discussions of special problems.

The section on **References Cited** provides full bibliographic entries for all literature citations given in the text. The citations of periodicals conform to the rules of entry in "Anglo-American Cataloging Rules; North American Text" (Amer. Libr. Ass., 1967) and the abbreviations follow the "Revised and Enlarged Word-Abbreviation List for American National Standard for Periodical Title Abbreviations" (Nat. Clearinghouse Period. Title Word Abbreviations, 1966).

In the **Index to Scientific Names**, the number in parentheses following a specific name refers to the number assigned to that name in the section on **Nominal Taxa**; all other references are to page numbers.

## NOMINAL TAXA

1. *Chagasia fajardi* (Lutz, 1904). Type: Female(s), Sao Paulo (Sao Paulo) (LU, not in IOC). Bionomics: [Larvae in mats of aquatic vegetation along margins of swift streams].

\*2. *Chagasia neivae* Cruz, 1906 [= *fajardi*]. Type: Female(s), Juiz de Fora (Minas Gerais), C. Chagas (LU). Bionomics: [As for 1. *fajardi*].

3. *Chagasia maculata* Peryassu, 1921 [= *fajardi*]. Type: Adult(s), in forest near park in Cambuquira (Minas Gerais) (LU). Bionomics: [As for 1. *fajardi*].

4. *Chagasia stigmopteryx* Martini, 1932 [= *fajardi*]. Type: Holotype female, Butantan, Sao Paulo (Sao Paulo), 28 Mar 1920, R. Fischer (DEI). Bionomics: [As for 1. *fajardi*].

5. *Chagasia rozeboomi* Causey, Deane & Deane, 1944. Type: Egg(s), Ceara; Type LOCALITY here restricted to vicinity of Sao Benedito (NE). Bionomics: [Larvae probably in vegetation along margins of streams].

6. *Anopheles (Stethomyia) lineatus* (Lutz, 1905) [= *nimbus*]. Type: Holotype male, probably near Sao Paulo (Sao Paulo) (possibly IOC, tubes 433,434,1066). Bionomics: [Larvae probably in mats of algae along margins of shaded swift streams].

7. *Anopheles (S.) lewisi* Shannon, 1931; *thomasi* Shannon, 1933, new name. Type: Holotype male, Rio Cururipe, near Salvador (Bahia) (USNM; see Stone and Knight, 1956b:278). Bionomics: [Larvae in forest springs and streams].

8. *Anopheles (A.) anchietai* Correa & Ramalho, 1968. Type: Holotype male (15856) with genitalia slide (3114) and slide of larval and pupal skins (3115), Cangaiba, Sao Paulo (Sao Paulo) (FH). Bionomics: [Larvae probably in permanent or semipermanent shaded ground waters].



9. *Anopheles (A.) bustamentei* Galvao, 1955. Type: Holotype female (10909, 4112), Ribeirao Pequeno, municipio de Laguna (Santa Catarina), 13 June 1950, J. Bento (FH). Bionomics: [Larvae probably in permanent or semipermanent ground waters]. Females on animal bait.

10. *Anopheles (A.) geometricus* Correa, 1944 [= var. of *eiseni*]. Type: Males larvae, pupae, eggs, Guaruja, Ilha de Santo Amaro (Sao Paulo) (NE). Bionomics: [Larvae probably in shaded waters with vegetation and organic matter].

11. *Anopheles (A.) evandroi* Lima, 1937. Type: Holotype female (3040) with slide of wing (3285), Sao Bento, Baixada Fluminense (Rio de Janeiro), Feb 1935, Evandro Chagas (IOC). Bionomics: [Larvae probably in permanent or semipermanent shaded ground waters].

12. *Anopheles (A.) fluminensis* Root, 1927. Type: Holotype male, Itaperuna (Rio de Janeiro), 17 June 1925, F.M. Root (USNM). Bionomics: Larvae along edges of a small brook.

13. *Anopheles (A.) intermedius* (Peryassu, 1908). Type: Females, Rio de Janeiro (Guanabara) and Xerem (Rio de Janeiro), July (possibly in IOC, slide (3295) of wing, 3045). Bionomics: [Larvae in shaded ground waters with dense vegetation; forest ponds or pools].

\*14. *Anopheles (A.) maculipes* (Theobald, 1903). Type: Holotype female, Sao Paulo (Sao Paulo), A. Lutz (BM). Bionomics: [Larvae probably in permanent or semipermanent shaded ground waters].

15. *Anopheles (A.) mattogrossensis* Lutz & Neiva, 1911. Type: Holotype female (3530), Lagoa de Manicore (Mandicore) [?Mandiore] (Mato Grosso), Aug 1908, J.C. Diogo (IOC). Bionomics: [Larvae in marshes, drainage ditches and small rain-water pools in open country; lagoons in forests].

16. *Anopheles (A.) amazonicus* Christophers, 1923 [= *mattogrossensis*]. Type: Holotype female, River Amazon, June 1915, A.A. Clark; TYPE LOCALITY here restricted to Manaus (Amazonas) (BM). Bionomics: [As for 15. *mattogrossensis*].

\*17. *Anopheles (A.) mediopunctatus* (Theobald, 1903). Type: Holotype male, Sao Paulo (Sao Paulo), A. Lutz (BM). Bionomics: [Larvae in sunlit, shallow fresh-water pools with abundant vegetation; in forest ponds and pools].

18. *Anopheles (A.) rockefelleri* (Peryassu, 1923) [= *mediopunctatus*]. Type: Female(s), Brazil without locality specified, Mar and Apr; TYPE LOCALITY here restricted to vicinity of Rio de Janeiro (Guanabara) (LU). Bionomics: [As for 17. *mediopunctatus*].

\*19. *Anopheles (A.) limai* Fonseca & Ramos, 1939; *costalimai* Coutinho, 1944, new name [= *mediopunctatus*]. Type: Holotype male (SPM33) with slides of wing (3) and male genitalia (2), Sao Vicente (Sao Paulo), Aug 1939 (FH). Bionomics: [As for 17. *mediopunctatus*].

20. *Anopheles (A.) costai* Fonseca & Ramos, 1939 [= *mediopunctatus*]. Type: Holotype male (SPM21) with slide of genitalia (1), Sao Vicente (Sao Paulo), June 1934 (FH). Bionomics: [As for 17. *mediopunctatus*].

21. *Anopheles (A.) minor* Lima, 1929. Type: Syntypes 1 male and 1 female (tube 281 not 291) with slides of wings (673,890), Estrella [Imbarie] (Rio de Janeiro), 14 Jan 1929 (IOC). Bionomics: [Larvae in ground waters with slow current].

\*22. *Anopheles (A.) lutzi* (Cruz, 1907); *peryassui* Dyar & Knab, 1908, new name. Type: Adult(s), shores of Rio Bicudo (Minas Gerais), June, C. Chagas (?IOC, 1 slide with 2 wings). Bionomics: [Large bodies of sunlit clear water with abundant emergent vegetation and some algae; partially shaded streams].



23. *Anopheles (A.) alagoanii* Peryassu, 1925 [= *perysassui*]. Type: Males and females, Mutange and Bom Parto, suburbs of Maceio, on shores of Lagoa Manguaba (Alagoas), June-Sept (LU). Bionomics: Larvae in partially shaded ditches and swamps. Adults fly rapidly and silently.

24. *Anopheles (A.) celidopus* Dyar & Shannon, 1925 [= *perysassui*]. Type: Holotype female, Carmo, Rio Branco (Roraima), 1 Sept 1924, J. Bequaert (USNM, 27747). Bionomics: [As for 22. *lutzi*].

25. *Anopheles (A.) pseudomaculipes* (Peryassu, 1908). Type: Adult(s), Xerem (Rio de Janeiro), July and Aug (?IOC, vial 280, slide 672, without data). Bionomics: [Larvae probably in permanent or semipermanent ground water].

26. *Anopheles (A.) rachoui* Galvao, 1952. Type: LECTOTYPE by present designation, female (1002) with 1 wing and 1 leg missing, Acude Sao Bento, municipio Santo Amaro (Bahia), 19 Mar 1947, C. Azumbuja (FH, 10080). Bionomics: Larvae in swamp.

27. *Anopheles (A.) shannoni* Davis, 1931. Type: Holotype female, Belem (Para), Apr 1930, D.J. Crawford and N.C. Davis (USNM). Bionomics: [Larvae in forest ponds and pools]. Adults on horse bait and alighting to feed in woods.

\*28. *Anopheles (A.) tibiamaculatus* (Neiva, 1906). Type: Female(s), Oliveira (Minas Gerais), May, C. Chagas (LU; not in IOC). Bionomics: [Larvae in rainpool without vegetation (Davis, 1944), in road ruts and pools on margins of streams in forest with cold water and without vegetation].

29. *Anopheles (Nyssorhynchus) allopha* (Peryassu, 1921) [= *albitarsis*]. Type: Syntypes males and females, coastal lowlands in Rio de Janeiro (Guanabara) and state of Rio de Janeiro (Museu Nac Rio de Janeiro). Bionomics: Larvae in swamps and bromeliads (?).

30. *Anopheles (N.) limai* Galvao & Lane, 1937 [= *albitarsis*]. Type: Eggs, adult(s), Pinheiros and Butantan, Sao Paulo (Sao Paulo) (NE; only slides of stomachs in FMSP). Bionomics: Larvae in depressions; grassy sunlit rain pools; generally with clear water but sometimes muddy; by Rio Pinheiros.

31. *Anopheles (N.) marajoara* Galvao & Damasceno, 1942 [= *albitarsis*]. Type: Males, females, larvae, Ilha do Marajo (Para); TYPE LOCALITY here restricted to vicinity of Cachoeira do Arari (FMSP 958). Bionomics: [As for 30. *limai*].

32. *Anopheles (N.) imperfectus* Correa & Ramos, 1943 [= *albitarsis*]. Type: Holotype female (22), Vera Cruz (Sao Paulo), G.R. Ramalho (FH). Bionomics: [As for 30. *limai*]. Taken biting horse.

33. *Anopheles (N.) domesticus* Galvao & Damasceno, 1944 [= ssp. of *albitarsis*]. Type: Males, females, eggs, Cachoeira [?do Arari], Ilha do Marajo (Para) (LU). Bionomics: [Larvae in borrow pits, brick pits, ditches, swamps, ponds, springs, streams].

34. *Anopheles (N.) antunesi* Galvao & Amaral, 1940. Type: Holotype female (370) with slide (235) of larval skin, Emilio Ribas, Campos do Jordao (Sao Paulo), elev. ca 1570 m (FMSP). Bionomics: Larvae in shaded clear water with sparse vegetation, in rockholes along river (Rio Capivari), in small drainage pools of fountain (Fonte Simao) and in shaded pools of small streams. Adults taken at night biting horse.

35. *Anopheles (N.) emilianus* Komp, 1941 [= *aquasalis*]. Type: Holotype male, northern outskirts of Belem (Para), 14 Apr 1941, W.H.W. Komp (USNM). Bionomics: Larvae in grassy pool. Holotype bred from larva.

36. *Anopheles (N.) guarujaensis* Ramos, 1942 [= *aquasalis*]. Type: Adults, larvae, eggs, Guaruja (Sao Paulo), Mar 1939 (LU). Bionomics: [Larvae in brackish or fresh water in tidal areas]. Adults in house.



\*37. *Anopheles (N.) argyritarsis* Robineau-Desvoidy, 1827. Type: Female(s), unspecified locality in Brazil; TYPE LOCALITY here restricted to vicinity of Rio de Janeiro (Guanabara) (NE). Bionomics: [Larvae in partly shaded or sunlit ground pools, usually small].

38. *Anopheles (N.) sawyeri* Causey, Deane, Deane & Sampaio, 1943 [= ssp. of *argyritarsis*]. Type: Holotype female, plateau of Serra da Ibiapaba, near Sao Benedito (Ceara) (USNM). Bionomics: [Larvae in mountain forest pools (Deane, Causey and Deane, 1946:45)]. Holotype bred from egg laid by female captured on horse bait.

39. *Anopheles (N.) braziliensis* (Chagas, 1907). Type: Syntypes 6 females, margins of Rio das Velhas (Minas Gerais), 11 July 1907; TYPE LOCALITY here restricted to vicinity of Lassance, see Root, 1926:704 (IOC). Bionomics: [Larvae in sunlit clear water with abundant emergent vegetation and algae].

40. *Anopheles (N.) pessoai* Galvao & Lane, 1937 [= *braziliensis*]. Type: Holotype female (82,25), left bank of Rio Pinheiros, Pinheiros, Sao Paulo (Sao Paulo), G.R. Ramalho (FMSP). Bionomics: Larvae in small, shallow, sunlit pools with abundant grass and algae. Holotype bred from larva.

41. *Anopheles (N.) darlingi* Root, 1926. Type: Lectotype male, Caxiribu, near Porto das Caixas (Rio de Janeiro), 12 Mar 1925 (USNM; designation by Stone, 1943:30). Bionomics: Larvae in patches of *Ceratophyllum* in small side bays and along edges of small river and canal with rather rapid current.

42. *Anopheles (N.) paulistensis* Galvao, Lane & Correa, 1937 [= *darlingi*]. Type: Adults, eggs, Novo Oriente, 3 km from Lussanvira, near Pereira Barreto (Sao Paulo), Apr-May, 1937 (LU). Bionomics: [As for 41. *darlingi*].

43. *Anopheles (N.) strodei* Root, 1926 [= *evansae*]. Type: Lectotype male (64), a few miles from Agua Limpa Station, near Juiz de Fora (Minas Gerais), 27 Mar 1925 (USNM; designation by Stone and Knight, 1956b:280). Bionomics: Larvae in small marshy expansions of mountain streams, side pools of a river and in small pools, marshes and seepage areas with abundant vegetation.

44. *Anopheles (N.) ramosi* Unti, 1940 [= var. of *evansae*]. Type: Larvae, Lorena (Sao Paulo), Mar 1940 (NE). Bionomics: Larvae in shade in extensive swamps with vegetation, principally "Aguape" and "Vassoura do brejo".

45. *Anopheles (N.) arthuri* Unti, 1941 [= var. of *evansae*]. Type: Eggs, valley of Rio Paraiba [do Sul] (Sao Paulo), elev. ca 500 m (NE). Bionomics: [As in 43. *strodei*].

46. *Anopheles (N.) artigasi* Unti, 1941 [= *evansae* var. *arthuri*]. Type: Eggs, valley of Rio Paraiba [do Sul] (Sao Paulo), elev. ca 500 m (NE). Bionomics: [As for 43. *strodei*].

47. *Anopheles (N.) albertoi* Unti, 1941 [= var. of *evansae*]. Type: Eggs, valley of Rio Paraiba [do Sul] (Sao Paulo), elev. ca 500 m (NE). Bionomics: [As for 43. *strodei*].

48. *Anopheles (N.) galvaoi* Causey, Deane & Deane, 1943. Type: LECTOTYPE female (R426) by present designation, marked *capanemai* in register, Rio Branco (Acre), O.R. Causey (FMSP, 694). Bionomics: [Larvae in small pools with algae and grass and in swamps]. Adults reared from eggs.

49. *Anopheles (N.) lanei* Galvao & Amaral, 1938. Type: Holotype female (86-1, 220), Emilio Ribas, near Campos do Jordao (Sao Paulo), elev. ca 1570 m, Feb-Mar, 1938 (FMSP). Bionomics: Larvae in clear permanent waters. Adults strongly zoophilic.

50. *Anopheles (N.) lutzii* Cruz, 1901. Type: Syntypes 3 females (1965) in tube



993 and slide (2111) of wing, Lagoa Rodrigo de Freitas, Rio de Janeiro (Guanabara) (IOC). Bionomics: [Larvae in swamps].

\*51. *Anopheles (N.) niger* (Theobald, 1907) [= *lutzii*]. Type: Lectotype female, Cantareira (Sao Paulo), 9 Nov 1904, A. Lutz (BM; designation by Belkin, 1968:10). Bionomics: [As for 50. *lutzii*].

52. *Anopheles (N.) guarani* Shannon, 1928 [= *lutzii*]. Type: Holotype female, Iguacu (Parana), 5 Oct 1927, R.C. and E.M. Shannon (USNM). Bionomics: [As for 50. *lutzii*].

53. *Anopheles (N.) nigratarsis* (Chagas, 1907). Type: Female(s), [Oliveira (Minas Gerais)] (from Peryassu, 1908:60) (LU). Bionomics: [Larvae probably in swamps or forest pools].

54. *Anopheles (N.) noroestensis* Galvao & Lane, 1937. Type: LECTOTYPE by present designation, male genitalia slide (2177;10293), adult apparently lost, (possible syntype FMSP, 343), Novo Oriente [Pereira Barreto], near Lussanvira (Sao Paulo) (FH). Bionomics: [Larvae in sunlit or partially shaded pools].

55. *Anopheles (N.) ayrozai* Unti, 1940 [= *noroestensis*]. Type: Female(s), larva(e), eggs, Guaratingueta (Sao Paulo), Nov 1939-Aug 1940 (NE; not in FH or SPM). Bionomics: Larvae in sunlit, clear water, shallow pools; wells and ditches with slightly colored or muddy water.

56. *Anopheles (N.) goeldii* Rozeboom & Gabaldon, 1941 [= *nuneztovari*]. Type: Holotype male, Boa Vista, Rio Tapajos (Para), C.H.T. Townsend (USNM). Bionomics: [Larvae in muddy pools and small lagoons, sunlit or partially shaded].

57. *Anopheles (N.) dunhami* Causey, 1945 [= *nuneztovari*]. Type: Holotype male with genitalia slide, Tefe (Amazonas) (USNM). Bionomics: [As for 56. *goeldii*].

58. *Anopheles (N.) oswaldoi* (Peryassu, 1922). Type: Syntypes males and females, Vale do Rio Doce (Espirito Santo) and Baixada Fluminense (Rio de Janeiro), Mar and Apr (Museu Nac Rio de Janeiro). Bionomics: [Larvae in shaded fresh water in swamps, pools or stagnant streams].

59. *Anopheles (N.) metcalfi* Galvao & Lane, 1937 [= *oswaldoi*]. Type: LECTOTYPE by present designation, male (96) with genitalia on slide (710210-1), Porto das Caixas (Rio de Janeiro), 29 May 1925, F.M. Root; 1 of several specimens identified as *tarsimaculatus* by Root (1926:711), on which Galvao and Lane based their *metcalfi* (USNM). Bionomics: Larvae in thick vegetation or flotage of quiet pools, ponds, marshes, lagoons, side-bays or edges of rivers.

60. *Anopheles (N.) konderi* Galvao & Damasceno, 1942 [= *oswaldoi*]. Type: Male(s), larva(e), pupa(e), Coari (Amazonas) (LU, no material in FMSP, 651; apparently lost). Bionomics: [As for 58. *oswaldoi*].

61. *Anopheles (N.) parvus* (Chagas, 1907). Type: Male(s) and female(s), [Oliveira (Minas Gerais) (Galvao, 1941:537)] (?IOC, 1966; female (tube 994) and slide (2112) of wing, both without data). Bionomics: [Larvae in small, shaded forest pools].

62. *Anopheles (N.) rondoni* (Neiva & Pinto, 1922). Type: LECTOTYPE by present designation, large wing mounted on slide (403) together with wing of type of *cuyabensis*, marked Matto Grosso, C. Pinto, remainder of adult apparently lost; TYPE LOCALITY restricted here to Ladario (Mato Grosso) on Rio Paraguai (IOC). Bionomics: [Larvae in small areas of clear water in ditches and marshes among aquatic vegetation].

63. *Anopheles (N.) triannulatus* (Neiva & Pinto, 1922). Type: Holotype female, Fazenda Sao Joao, right bank of Rio Cuiaba (Mato Grosso) (LU; not in IOC). Bionomics: [Larvae in vegetation in freshwater pools, lakes and river margins].



64. *Anopheles (N.) cuyabensis* (Neiva & Pinto, 1923) [= *triannulatus*]. Type: LECTOTYPE by present designation, small wing mounted on slide (403) together with wing of type of *rondoni*, marked Matto Grosso, C. Pinto, remainder of adult apparently lost; type locality, Fazenda Sao Joao, right bank of Rio Cuiaba (Mato Grosso) (IOC). Bionomics: [As for 63. *triannulatus*].

65. *Anopheles (N.) chagasi* Galvao, 1941 [= *triannulatus*]. Type: Females and eggs, Chaves (Para), Itacoatiara and Manaus (Amazonas); TYPE LOCALITY here restricted to Manaus (LU). Bionomics: [As for 63. *triannulatus*].

66. *Anopheles (Kerteszia) lutzii* Theobald, 1901; *cruzii* Dyar & Knab, 1908, *adolphoi* Neiva, 1908, new names. Type: Lectotype female, Rio de Janeiro (Guana-  
bara), 4 July 1899, A. Lutz (BM, designation by Belkin, 1968:10). Bionomics: [Larvae in bromeliads].

67. *Anopheles (K.) montemor* Correa, 1950 [= *cruzii*]. Type: Holotype male (102) with slides of genitalia (15,G8D1) and larval and pupal skins (15,G8D1), Caraguatatuba (Sao Paulo), G.R. Ramalho and J. Germano (FH). Bionomics: [Larvae in bromeliads].

68. *Anopheles (K.) laneanus* Correa & Cerqueira, 1944 [= ssp. of *cruzii*]. Type: Holotype male (383.H.13) with genitalia slide (640), Campos do Jordao (Sao Paulo), elev. 1600 m, J. Lane and F. Lane (FH;2226 in tube 2227). Bionomics: [Larvae in bromeliads].

\*69. *Anopheles (Lophopodomyia) gilesi* (Peryassu, 1908). Type: Holotype male, Rio das Velhas (Minas Gerais), June; TYPE LOCALITY here restricted to vicinity of Lassance (LU). Bionomics: [Larvae in shaded, cool, clear water in mountain forest streams].

70. *Anopheles (L.) pseudotibiamaculatus* Galvao & Barretto, 1941. Type: Holotype female (380,438), Casa Grande, municipio Mogi das Cruzes (Sao Paulo), 5 Sept 1940, M. Pereira Barretto (FMSP). Bionomics: [Larvae in shaded streams and pools].

71. *Toxorhynchites (Ankylorhynchus) catharinensis* (Lima, Guitton & Ferreira, 1962). Type: Holotype female (5553) with slide (4869) of associated pupal skin, Brusque (Santa Catarina), R. Rachou (IOC). Bionomics: [Larvae in bromeliads].

72. *Toxorhynchites (A.) purpureus* (Theobald, 1901). Type: Lectotype female, Amazon, 1861, H.W. Bates; TYPE LOCALITY here restricted to Manaus (Amazonas) (BM; designation by Belkin, 1968:34). Bionomics: [Larvae in bromeliads].

73. *Toxorhynchites (A.) trichopygus* (Wiedemann, 1828). Type: Syntypes 3 males, Brazil, locality not specified, Freireiss; TYPE LOCALITY here restricted to Salvador (Bahia) (SNG; see Belkin, 1968:34). Bionomics: [Larvae in bromeliads].

74. *Toxorhynchites (A.) neglectus* (Lutz, 1904) [= *trichopygus*]. Type: Holotype female, near Sao Paulo (Sao Paulo) (NE). Bionomics: Bred from larva in bromeliad.

75. *Toxorhynchites (Lynchiella) bambusicola* (Lutz & Neiva, 1913). Type: Syntypes males and females, Petropolis (Rio de Janeiro), elev. 800-900 m, J.G. Foetterle et al (IOC). Bionomics: Larvae in bamboo internodes (taquaracu [*Guadia* sp.]).

76. *Toxorhynchites (L.) horei* (Gordon & Evans, 1922) [*identity uncertain*]. Type: Lectotype male (463) with genitalia on 2 slides, Macapa, near Manaus (Amazonas), 21 Dec 1921, R.M. Gordon (BM; designation by Belkin, 1968:33). Bionomics: Larvae in axils of "bananeira brava" [*Heliconia* sp.].

77. *Toxorhynchites (L.) mariae* (Bourroul, 1904). Type: Female(s), larva(e), Ilha de Itaparica (Bahia) (NE). Bionomics: Larvae in bromeliads.

78. *Toxorhynchites (L.) pusillus* (Lima, 1931). Type: Syntypes 1 male (541),



1 female (526) with slides of associated larval skins (1102,1121) and pupal skins (1116,1135), Alto da Boa Vista, Tijuca, Rio de Janeiro (Guanabara), Apr 1930, C.A. Campos Seabra (IOC). Bionomics: Larvae in bamboo internodes.

79. *Toxorhynchites (L.) solstitialis* (Lutz, 1904). Type: LECTOTYPE by present designation, female marked as type by Theobald (data in Belkin, 1968:34), Sao Paulo (Sao Paulo), 7 Oct 1903 (BM). Bionomics: Larvae in bromeliads, principally "*Aechmea tinctoria*".

80. *Toxorhynchites (L.) chrysocephalus* (Theobald, 1907) [= *solstitialis*]. Type: Holotype male, Sao Paulo (Sao Paulo), 17 Aug 1903, A. Lutz (BM). Bionomics: [As for 79. *solstitialis*].

81. *Toxorhynchites (L.) ferox* (Wiedemann, 1828); *wiedemanni* Dyar & Knab, 1906, new name. Type: Syntypes several males, Brazil, without specified locality; TYPE LOCALITY here restricted to Salvador (Bahia) (SNG and NMW; see Belkin, 1968:33). Bionomics: [Larvae probably in treeholes or bamboo].

82. *Toxorhynchites (L.) posticatus* (Lutz & Neiva, 1913) [?= *wiedemanni*]. Type: Syntypes 2 females (549,550) and possibly 1 male (540), Petropolis (Rio de Janeiro) (IOC). Bionomics: Larvae in bromeliads.

83. *Toxorhynchites (L.) violaceus* (Wiedemann, 1820). Type: Lectotype male, Bahia [Salvador (Bahia)] (NMW; designation by Belkin, 1968:34). Bionomics: [Larvae in bromeliads].

84. *Toxorhynchites (L.) ambiguus* (Dyar & Knab, 1906) [*identity uncertain*]. Type: Holotype male, Brazil, locality not specified, coll. Winthem; TYPE LOCALITY here restricted to Salvador (Bahia) (LU; originally in Winthem Collection in Hamburg, possibly now in NMW; see Belkin, 1968:32). Bionomics: [Larvae probably in treeholes, bamboo or bromeliads].

85. *Toxorhynchites (L.) fluminensis* (Peryassu, 1908) [*identity uncertain*]. Type: Described from unspecified number of males, females and larvae, Rio de Janeiro (Guanabara) (possibly IOC, male (tube 535), with genitalia slide (1128), Rua Conde de Bonfim, Rio de Janeiro, 16 Apr 1907, C. Chagas leg.). Bionomics: Larvae in bromeliads.

86. *Trichoprosopon (T.) compressum* Lutz, 1905. Type: Syntypes males and females, states of Sao Paulo and Rio de Janeiro; following material in box 13 possibly part of type series: 1 female (2653), Sao Paulo; 1 male without genitalia (2651), 1 female (2652), Petropolis; 1 female (2654), 1 adult (2655), without data; 2 male genitalia slides (1313,1314), "da coll. do Dr. Lutz" (IOC). Bionomics: Larvae in bamboo.

87. *Trichoprosopon (T.) digitatum* (Rondani, 1848). Type: Female(s), Brazil locality not specified; TYPE LOCALITY here restricted to vicinity of Rio de Janeiro (Guanabara) (LU; see Belkin, 1968:35). Bionomics: [Larvae in cacao pods, coconut husks and fallen palm spathes].

88. *Trichoprosopon (T.) splendens* Lutz, 1904 [= *digitatum*]. Type: Adult(s), Manaus (Amazonas) (NE). Bionomics: [As for 87. *digitatum*].

89. *Trichoprosopon (T.) townsendi* Stone, 1944 [= var. of *digitatum*]. Type: Holotype male (56740), Boa Vista, Rio Tapajos (Para), 20-22 July, C.H.T. Townsend (USNM). Bionomics: [Probably as for 87. *digitatum*].

90. *Trichoprosopon (T.) obscurum* Lane & Cerqueira, 1942. Type: Holotype male, Mangaratiba (Rio de Janeiro), Apr-Oct 1938 (IOC). Bionomics: [Larvae probably in bamboo].

\*91. *Trichoprosopon (T.) pallidiventer* (Lutz, 1904). Type: LECTOTYPE by present designation, male dissected on slide, marked *Holoconops pallidiventer* Lutz by



Theobald, Sao Paulo (Sao Paulo), A. Lutz (BM; see Belkin, 1968:36-37). Bionomics: [Larvae in bamboo internodes].

92. *Trichoprosopon (T.) soaresi* Lane & Cerqueira, 1942. Type: Holotype male, Sao Joao de Petropolis (Espirito Santo) (IOC). Bionomics: [Larvae in bamboo internodes].

\*93. *Trichoprosopon (Limamyia) brevipes* (Lima, 1931). Type: LECTOTYPE by present designation, male (tube 462) with genitalia on slide (1029) and larval and pupal skins on slides, apparently mixed with those of female, Laranjeiras, Rio de Janeiro (Guanabara), Jan 1930, J.F. Ladeiras (IOC). Bionomics: Larvae in bamboo internode.

\*94. *Trichoprosopon (Shannoniana) fluviatile* (Theobald, 1903). Type: Holotype female, marked by Theobald *Heleconops longipalpis* Lutz, Sao Paulo (Sao Paulo), A. Lutz (BM; see Belkin, 1968:35-36). Bionomics: [Larvae in bored internodes of bamboo or "taquarucu" (*Chusquea gaudichaudii*)].

95. *Trichoprosopon (S.) longipalpis* (Lutz, 1905) [= *fluviatile*]. Type: Syntypes male(s) and female(s), [Sao Paulo (Sao Paulo)] (IOC, possibly male (2635) with genitalia slide, 1315). Bionomics: [As for 94. *fluviatile*].

96. *Trichoprosopon (Isostomyia) luederwaldti* (Lane, 1936). Type: Holotype female (439), Fazenda Jose Euphrasio, Avare (Sao Paulo), 21 Mar 1936, J. Lane and F. de Andrade (FH,426 not 428). Bionomics: [Larvae probably in leaf axils of Araceae or leaf axils and flower bracts of Musaceae].

97. *Trichoprosopon (Ctenogoeldia) walcotti* Lane & Cerqueira, 1942. Type: Holotype female, Caravelas (Bahia), Jan 1931, N.C. Davis (IOC). Bionomics: [Larvae probably in leaf axils or flower bracts of Marantaceae or Musaceae].

98. *Trichoprosopon (Runchomyia) castroi* Lane & Cerqueira, 1942. Type: Holotype male, Teresopolis (Rio de Janeiro), Mar-May, 1938 (IOC). Bionomics: [Larvae probably in bromeliads or leaf axils and flower bracts of other water holding plants]

99. *Trichoprosopon (R.) cerqueirai* Stone, 1944. Type: Holotype male (57190), Rio de Janeiro (Guanabara), Feb 1940, L. Whitman (USNM). Bionomics: [Larvae in bromeliads].

100. *Trichoprosopon (R.) edwardsianum* Lane & Cerqueira, 1942. Type: Holotype female, Belterra, Santarem (Para), Sept 1938 (IOC). Bionomics: [Larvae in crown of palms, *Mauritia* sp.].

101. *Trichoprosopon (R.) humboldti* Lane & Cerqueira, 1942. Type: Holotype male, Paineiras, Rio de Janeiro (Guanabara), Aug 1939 (IOC). Bionomics: [Larvae probably in bromeliads or leaf axils and flower bracts of other water holding plants].

102. *Trichoprosopon (R.) trichopus* (Dyar, 1919) [= *longipes*]. Type: Holotype female (21996), Tefe (Amazonas), June 1906, Ducke (USNM). Bionomics: [Larvae in leaf axils of *Montrichardia arborescens* (Araceae), Kumm and Novis, 1938:512].

\*103. *Trichoprosopon (R.) lunatum* (Theobald, 1901). Type: Lectotype female, Maua, Rio de Janeiro (Guanabara), 22 July 1899, C. Moreira (BM; designation by Belkin, 1968:36). Bionomics: [Larvae in leaf axils of Musaceae and Araceae].

104. *Trichoprosopon (R.) reversum* Lane & Cerqueira, 1942. Type: Holotype male, Mage (Rio de Janeiro), July 1940 (IOC). Bionomics: Larva in bromeliad.

105. *Trichoprosopon (R.) simile* Lane & Cerqueira, 1942. Type: Holotype male, Campos do Jordao (Sao Paulo), Dec 1935 or Jan 1936, F. Lane (IOC). Bionomics: [Larvae probably in bromeliads or leaf axils and flower bracts of other water holding plants].



106. *Trichoprosopon (R.) theobaldi* Lane & Cerqueira, 1942. Type: Holotype male, Mage (Rio de Janeiro), June 1940 (IOC). Bionomics: [Larvae in bromeliads in Trinidad (Lane, 1945:133)].

107. *Wyeomyia (W.) arthro stigma* (Lutz, 1905). Type: LECTOTYPE by present designation, only remaining specimen, female without locality label but with handwritten label, "Proveniente de larva de taqueras, (larva os predador e desenhada)" [Sao Paulo (Sao Paulo), Peryassu, 1908:75] (IOC). Bionomics: Larvae in bamboo.

108. *Wyeomyia (W.) downsi* Lane, 1945. Type: Holotype female (608), Mirassol (Sao Paulo), Jan 1936, Andrade and Antenor (FH,4043). Bionomics: [Larvae probably in leaf axils or flower bracts of plants or in bamboo].

109. *Wyeomyia (W.) leucotarsis* Lane, 1936 [= var. of *hosautos*]. Type: Syntype females, Boa Esperanca and Pocinho (Mato Grosso), 19 Aug-6 Sept (LU; not in FH). Bionomics: [Larvae in cut bamboo]. Females attracted to humans in forest in daytime.

110. *Wyeomyia (W.) limai* Lane & Cerqueira, 1942. Type: Holotype male, Londrina (Parana), Sept 1936, Jan or Feb 1937 (IOC). Bionomics: [Larvae probably in bamboo].

111. *Wyeomyia (W.) lutzi* (Lima, 1930). Type: Syntypes, several males and females, with larval and pupal skins and genitalia slides, Alto da Boa Vista, Tijuca, Rio de Janeiro (Guanabara), 28 Feb, 20 Apr 1930, C.A. Campos Seabra (IOC; tubes 472,513,514; slides 1058,1066,1084,1096-1101,1103,1104,1118,1119,1171-1176). Bionomics: Larvae in bamboo internodes.

112. *Wyeomyia (W.) medioalbipes* Lutz, 1904. Type: LECTOTYPE by present designation, male with attached genitalia mount, rest of abdomen glued on another attached mount with red type label, [garden of Hospital de Santa Isabel], Bahia [Salvador] (Bahia) (BM; see Belkin, 1968:40-41). Bionomics: Reared from larvae collected in bromeliads.

113. *Wyeomyia (W.) oblita* (Lutz, 1904). Type: Syntypes male and female (tube 1544), with genitalia on slides (4599,4600), [Pacaembu], Sao Paulo (Sao Paulo), 11 Oct 1904, [A. Lutz] (IOC); female (BM; see Belkin, 1968:41). Bionomics: Males reared from larvae in "tabuas" (*Typha*), Lutz, 1905:271.

114. *Wyeomyia (W.) pintoii* (Lima, 1930) [?= *oblita*]. Type: Holotype female (618), Mendes (Rio de Janeiro), fazenda of Dr. Olympio da Fonseca (IOC). Bionomics: Larvae in bamboo internodes.

115. *Wyeomyia (W.) sabethea* Lane & Cerqueira, 1942. Type: Holotype male, Teresopolis (Rio de Janeiro), Apr 1938 (IOC). Bionomics: [Larvae probably in bamboo internodes].

116. *Wyeomyia (W.) serrata* (Lutz, 1905). Type: LECTOTYPE by present designation, male, marked as 1 of 2 "cotypes" by Costa Lima, with genitalia slides (1167 and 1168) and possibly slide of leg (1169) and wing (1170), R. Frio, Pindamonhangaba, Sao Paulo (Sao Paulo), 9-12 Feb 1905, A. Lutz (IOC). Bionomics: [Larvae probably in bamboo].

\*117. *Wyeomyia (Cruzmyia) dyari* Lane & Cerqueira, 1942. Type: Lectotype male (1363) with slides of genitalia (355) and midtarsus (356), Petropolis (Rio de Janeiro), May 1938, R.C. Shannon (FH; designation by Lane and Cerqueira, 1958a). Bionomics: Larvae in bromeliads.

118. *Wyeomyia (C.) kummi* Lane & Cerqueira, 1942. Type: Holotype female, Currealinho (Para), Jan, Feb 1936, H.W. Kumm (IOC). Bionomics: [Larvae probably in bromeliads].

119. *Wyeomyia (C.) mattinglyi* Lane, 1953. Type: Female(s), state of Bahia; TYPE LOCALITY here restricted to vicinity of Salvador (LU; not in IOC or FH). Bionomics: [Larvae probably in bromeliads].

\*120. *Wyeomyia (Menolepis) leucostigma* Lutz, 1904. Type: Adult(s), Sao Paulo (Sao Paulo) (NE). Bionomics: Larvae in "tabuas" (*Typha*).



\*121. *Wyeomyia (Antunesmyia) rooti* Lane & Cerqueira, 1942; *alani* Lane & Cerqueira, 1957, new name. Type: Holotype male, Rio de Janeiro (Guanabara), Oct 1940 (IOC). Bionomics: [Larvae probably in bamboo].

122. *Wyeomyia (Dendromyia) airosai* Lane & Cerqueira, 1942. Type: Holotype male, Santa Teresa (Espírito Santo), May 1940 (IOC). Bionomics: [Larvae probably in bromeliads].

123. *Wyeomyia (D.) bourrouli* (Lutz, 1905). Type: Male(s) and female(s), Estação de Itaici (Sao Paulo) (NE). Bionomics: Larvae in bromeliads.

124. *Wyeomyia (D.) cesari* Del Ponte & Cerqueira, 1938. Type: Holotype female (2209), Cuiaba (Mato Grosso), Mar 1935, G. Cesar (IOC). Bionomics: [Larvae probably in leaf axils].

\*125. *Wyeomyia (D.) confusa* (Lutz, 1905). Type: Syntype females, woods near Sao Paulo (Sao Paulo) (NE). Bionomics: [Larvae probably in leaf axils or flower bracts of Araceae, Marantaceae and Musaceae, and possibly bromeliads].

126. *Wyeomyia (D.) finlayi* Lane & Cerqueira, 1942. Type: Holotype male, Xerem (Rio de Janeiro), June 1940 (IOC). Bionomics: [Larvae probably in bromeliads].

127. *Wyeomyia (D.) howardi* Lane & Cerqueira, 1942. Type: Holotype male, Muriqueira [Gois Calmon] (Bahia), May 1929, R.C. Shannon (IOC). Bionomics: [Larvae probably in bromeliads].

128. *Wyeomyia (D.) kerri* Del Ponte & Cerqueira, 1938. Type: Holotype female (2210), Cuiaba (Mato Grosso), Feb-July 1935, G. Cesar (IOC). Bionomics: larvae in "palma de assaizeiro" (*Garapa guyanensis* Hubl.).

129. *Wyeomyia (D.) knabi* Lane & Cerqueira, 1942. Type: Holotype male, Cachoeira (Rio de Janeiro), May 1938 (IOC). Bionomics: [Larvae probably in leaf axils].

\*130. *Wyeomyia (D.) luteoventralis* Theobald, 1901. Type: Lectotype female, [Belem] (Para), H.E. Durham (BM; designation by Belkin, 1968:40). Bionomics: [Larvae probably in bromeliads].

131. *Wyeomyia (D.) melanoides* (Root, 1928) [= *melanocephala*]. Type: Lectotype male (90-2) with genitalia slide and associated pupal skin, Mage (Rio de Janeiro), 26 May 1925 (USNM,44165; designation by Stone and Knight, 1957b:124). Bionomics: [Larvae probably in leaf axils of Araceae, Musaceae or Typhaceae].

132. *Wyeomyia (D.) mystes* Dyar, 1924. Type: Lectotype male with genitalia slide (36.VII.28b), Rio de Janeiro (Guanabara), Aug 1922, F.L. Soper (USNM; designation by Stone and Knight, 1957b:124). Bionomics: [Larvae in leaf axils, of aroids (Dyar, 1928:72) or bromeliads (Shannon, 1931:6)].

133. *Wyeomyia (D.) negrensis* Gordon & Evans, 1922. Type: Lectotype male (10-5/643) with 2 slides of genitalia, Macapa, near Manaus (Amazonas), 20 Dec 1921, R.M. Gordon (BM; designation by Belkin, 1968:41). Bionomics: Larvae in "bananeira brava" (*Heliconia* sp.).

134. *Wyeomyia (D.) personata* (Lutz, 1904). Type: LECTOTYPE by present designation, male with attached genitalia mount, marked "Type selected by J. Lane", Cantareira (Sao Paulo) (BM; see Belkin, 1968:41). Bionomics: Larvae in "taquaras" (bamboo).

135. *Wyeomyia (D.) brucei* Del Ponte & Cerqueira, 1938 [= *personata*]. Type: Holotype female (2211), Cuiaba (Mato Grosso), Feb-June 1935, G. Cesar (LU; in IOC only "allotype" of Lane and Cerqueira (1942:599) present). Bionomics: [Larvae in bamboo internodes (Lane and Cerqueira, loc. cit.)].

136. *Wyeomyia (D.) rooti* (Del Ponte, 1939). Type: LECTOTYPE by present



designation, female, same specimen as the holotype of *delpontei* Lane & Cerqueira, 1942, Cuiaba (Mato Grosso), Feb 1935 (IOC; for explanation see Del Ponte in authors section). Bionomics: [Larvae probably in uncut internodes of bamboo].

137. *Wyeomyia (D.) delpontei* Lane & Cerqueira, 1942 [= *rooti*]. Type: Holotype female, Cuiaba (Mato Grosso), Feb 1935 (IOC). Bionomics: [Larvae probably in uncut internodes of bamboo].

138. *Wyeomyia (D.) shannoni* Lane & Cerqueira, 1942. Type: Holotype male, Mangaratiba (Rio de Janeiro), Apr 1938 (IOC). Bionomics: [Larvae probably in leaf axils or flower bracts of Musaceae and Araceae, or possibly in bromeliads or palms].

139. *Wyeomyia (D.) subcomplosa* (Del Ponte, 1939) [*identity uncertain*]. Type: Syntype females, Cuiaba (Mato Grosso), Feb-Mar 1935, G. Cesar; Rio Canaticu, Currealinho (Para), Jan 1936, H.W. Kumm; Bahia [Salvador (Bahia)], 1930, R.C. Shannon and N.C. Davis; Sergipe, 1929, R.C. Shannon and N.C. Davis; Para [Belem (Para)], Apr 1930, R.C. Shannon and N.C. Davis (LU, possibly FH, IOC or USNM; for explanation see Del Ponte in authors section). Bionomics: [Pupa in water in "inaja" palm (*Maximiliana regia*)].

140. *Wyeomyia (D.) tarsata* Lane & Cerqueira, 1942. Type: Holotype male, Anapolis (Goias), Sept 1936, Veiga and O. Verano (IOC). Bionomics: Larvae in treehole ("jenipapeiro", *Genipa americana*) in association with *Aedes fulvithorax*.

141. *Wyeomyia (D.) undulata* Del Ponte & Cerqueira, 1938. Type: Holotype female (2213), Cuiaba (Mato Grosso) Feb 1935, G. Cesar (IOC). Bionomics: [Larvae probably in leaf axils or in bamboo].

142. *Phoniomyia antunesi* (Lane & Guimaraes, 1937). Type: Syntypes males, females and larvae, Campos do Jordao (Sao Paulo), Dec 1935-Jan 1936, F. Lane (FH; lectotype not designated). Bionomics: [Larvae in bromeliads].

143. *Phoniomyia bonnei* Lane & Cerqueira, 1942. Type: Holotype male, Rio de Janeiro (Guanabara) (IOC not FH; in latter a male (FH, 1362, slide 354) from Iguacu (Rio de Janeiro), labelled holotype of "*rockefelleri*" and *bonnei* is a paratype). Bionomics: [Larvae in bromeliads].

144. *Phoniomyia davisii* Lane & Cerqueira, 1942. Type: Holotype male, Mangaratiba (Rio de Janeiro), July 1938, R.C. Shannon (IOC not FH; in latter male (1515) with genitalia intact, from same locality, May 1938, marked holotype is a paratype). Bionomics: [Larvae in bromeliads].

145. *Phoniomyia diabolica* Lane & Forattini, 1952. Type: Holotype male (9110) with attached mounts of genitalia and larval and pupal skins, Serra do Diabo, rio Cuiaba, municipio Venceslau (Sao Paulo), 25 Apr 1951, O.P. Forattini (FH). Bionomics: Larvae in epiphytic bromeliads.

146. *Phoniomyia edwardsi* Lane & Cerqueira, 1942. Type: LECTOTYPE by present designation, male (95.x) with genitalia on slide (95 x/y. Mercedes) together with pupal skin, Porto das Caixas (Rio de Janeiro), 29 May 1925, F.M. Root; 1 of several specimens identified as *quasilongirostris* by Dyar (1928:54), Lane and Cerqueira's (1942:638, footnote) reference to a single specimen of this series as a holotype is incorrect; the present specimen is probably the one from which the figure of the genitalia in Dyar (1928:fig. 37) was drawn; the larva described and figured by Dyar (1928: fig. 37) is incorrectly associated and belongs to *Weomyia (C.) dyari*, see Lane and Cerqueira, 1942:581 (USNM). Bionomics: Larvae in bromeliads.

147. *Phoniomyia flabellata* Lane & Cerqueira, 1942. Type: Holotype male, Muriqueira [Gois Calmon] (Bahia), 1929 (IOC). Bionomics: [Larvae probably in bromeliads].



148. *Phoniomyia galvaoi* Correa & Ramalho, 1956. Type: Holotype male (804-4) with slide (2298, not labelled) of genitalia and larval and pupal skins, Parada 24 de Outubro, municipio Guarujá (Sao Paulo) (FH,10886). Bionomics: [Larvae in bromeliads].

149. *Phoniomyia incaudata* (Root, 1928). Type: Lectotype male (66) with genitalia slide, Rio de Janeiro (Guanabara), 12 Apr 1925, F.M. Root (USNM,44163; designation by Stone and Knight, 1957b:117). Bionomics: Larvae in bromeliads.

\*150. *Phoniomyia longirostris* (Theobald, 1901). Type: Lectotype female, Rio de Janeiro (Guanabara), 4 July 1899, A. Lutz (BM; designation by Belkin, 1968:24). Bionomics: [Larvae in bromeliads].

151. *Phoniomyia lopesi* Correa & Ramalho, 1956. Type: Holotype male (6.14) with slide (2300, not labelled) of genitalia and larval and pupal skins, Parada 24 de Outubro, municipio Guarujá (Sao Paulo), 14 Jan 1953 (FH,10888). Bionomics: Larvae in bromeliads.

152. *Phoniomyia pallidoventer* Theobald, 1907. Type: Holotype male (10) with genitalia on slide, Rio de Janeiro (Guanabara), F. Fajardo (BM; see Belkin, 1968:24). Bionomics: [Larvae in bromeliads].

153. *Phoniomyia palmata* Lane & Cerqueira, 1942. Type: Holotype male, Rio de Janeiro (Guanabara) (IOC). Bionomics: Larvae in bromeliads.

154. *Phoniomyia pilicauda* (Root, 1928). Type: Lectotype male (95.2) with genitalia slide and associated larval and pupal skins, Porto das Caixas (Rio de Janeiro), 29 May 1925, F.M. Root (USNM,44164; designation by Stone and Knight, 1957b:117). Bionomics: Larvae in bromeliads.

155. *Phoniomyia quasilongirostris* Theobald, 1907. Type: Lectotype female (7), Mana [Maua], Rio de Janeiro (Guanabara), F. Fajardo (BM; designation by Belkin, 1968:24). Bionomics: [Larvae in bromeliads].

156. *Phoniomyia neivai* Lane & Cerqueira, 1942 [= *quasilongirostris*]. Type: Holotype female, Londrina (Parana) (IOC; in FH (1373) female (11566) from same locality, Nov 1936, also marked holotype). Bionomics: [Larvae in bromeliads].

157. *Phoniomyia theobaldi* Lane & Cerqueira, 1942. Type: Holotype male, Rio de Janeiro (Guanabara), May 1937 (IOC; in FH (1434) male (SFA1) with genitalia slide, same locality, June 1937, also labelled holotype). Bionomics: [Larvae in bromeliads].

\*158. *Phoniomyia tripartita* (Bonne-Wepster & Bonne, 1921). Type: Holotype male, represented by fig. 2 in Dyar (1919), Sao Paulo (Sao Paulo) (NE, see Belkin, 1968:24). Bionomics: [Larvae probably in bromeliads].

\*159. *Limatus durhamii* Theobald, 1901. Type: Lectotype female, Para [Belem] (Para), H.E. Durham (BM; designation by Belkin, 1968:23). Bionomics: [Larvae in treeholes, bamboo, cacao pods, fruit rinds, fallen leaves and artificial containers].

\*160. *Limatus curvirostris* (Laveran, 1902) [= *durhamii*]. Type: Male(s) and female(s), neighborhood of Rio de Janeiro (Guanabara), elev. 300-500 m (NE; see Belkin, 1968:22). Bionomics: [As for 159. *durhamii*].

161. *Limatus paraensis* (Theobald, 1903) [= *durhamii*]. Type: Holotype female, Para [Belem] (Para), H.E. Durham (BM). Bionomics: [As for 159. *durhamii*].

162. *Limatus flavisetosus* Castro, 1935. Type: Holotype, presumably male, Serra do Cubatao (Sao Paulo) (LU; not in IOC). Bionomics: Larvae in treeholes.

163. *Sabethes (S.) albiprivus* Theobald, 1903. Type: Lectotype female, Sao Paulo (Sao Paulo), 28 Nov, A. Lutz (BM; designation by Belkin, 1968:30). Bionomics: [Larvae probably in treeholes, bamboo or possibly leaf axils].

164. *Sabethes (S.) albiprivatus* Lutz, 1904 [= *albiprivus*]. Type: LECTOTYPE



by present designation, female, Sao Paulo (Sao Paulo), 28 Nov, A. Lutz, same as lectotype of *163. albiprivus* (BM; see Belkin, 1968:30). Bionomics: [As for *163. albiprivus*].

*165. Sabethes (S.) amazonicus* Gordon & Evans, 1922. Type: Holotype female, ca 300 yds in forest, Macapa, near Manaus (Amazonas), 22 Dec 1921, R.M. Gordon (BM). Bionomics: [Larvae probably in treeholes, bamboo or possibly leaf axils].

*166. Sabethes (S.) longfieldae* Edwards, 1928 [= *amazonicus*]. Type: Holotype female, Melguerra [?], Ribeirao Amolar, headwaters of Rio Paraguai, south of Diamantino (Mato Grosso), elev. ca 2000 ft, 24 May 1927, C. Longfield (BM). Bionomics: [As for *165. amazonicus*].

*167. Sabethes (S.) batesi* Lane & Cerqueira, 1942. Type: Holotype male, Tingua (Rio de Janeiro), July 1940, J. Lane (IOC). Bionomics: [Larvae probably in treeholes, bamboo or possibly leaf axils].

*168. Sabethes (S.) belisarioi* Neiva, 1908. Type: Syntypes 2 females, Bicudos (Minas Gerais), Feb, B. Penna (LU; not in IOC). Bionomics: [Larvae in bromeliads and occasionally in water on cut trees].

*169. Sabethes (S.) argyronotum* Edwards, 1928 [= *belisarioi*]. Type: Lectotype female, Melguerra [?], Ribeirao Amolar, headwaters of Rio Paraguai, south of Diamantino (Mato Grosso), elev. ca 2000 ft, 26 May 1927, C. Longfield (BM; designation by Belkin, 1968:30). Bionomics: [As for *168. belisarioi*].

*170. Sabethes (S.) nitidus* Theobald, 1901 [distinct from *bipartipes*]. Type: Lectotype male, Para [Belem] (Para), H.E. Durham (BM; designation by Belkin, 1968:31). Bionomics: [Larvae probably in treeholes, bamboo or leaf axils].

\**171. Sabethes (S.) locuples* Robineau-Desvoidy, 1827 [= *cyaneus*]. Type: Female(s), Brazil, locality not specified; TYPE LOCALITY here restricted to vicinity of Rio de Janeiro (Guanabara) (NE). Bionomics: [Larvae probably in bamboo or treeholes].

*172. Sabethes (S.) remipes* (Wiedemann, 1828) [= *cyaneus*]. Type: Holotype female, Brazil, without specified locality; TYPE LOCALITY here restricted to Salvador (Bahia) (ZMC; see Belkin, 1968:32). Bionomics: [As for *171. locuples*].

*173. Sabethes (S.) forattinii* Cerqueira, 1961. Type: Holotype male (2018) with genitalia slide (399), Manaus, km 23 on route 17 to Caracarai (Amazonas), 16 Oct 1959, C. Elias (FH,15017, slide 2963). Bionomics: [Larvae probably in bamboo, treeholes or possibly leaf axils].

*174. Sabethes (S.) lanei* Cerqueira, 1961. Type: Holotype male (2015) with genitalia slide (465), Manaus, km 23 on route 17 to Caracarai (Amazonas), 14 Oct 1959, C. Elias (FH,15113, slide 2969). Bionomics: [Larvae probably in bamboo, treeholes or possibly leaf axils].

*175. Sabethes (S.) lutzii* Theobald, 1903 [*nomen dubium*]. Type: Holotype possibly represented by slide (1278) of wing, marked "da coll. de Dr. Lutz/XI-930/C.L."; type locality, Manaus (Amazonas) (?IOC). Bionomics: [Larvae probably in treeholes, bamboo or possibly leaf axils].

*176. Sabethes (S.) purpureus* (Theobald, 1907). Type: Lectotype female with right wing on slide, Rio de Janeiro (Guanabara), E.A. Goeldi (BM; designation by Belkin, 1968:31). Bionomics: [Larvae in treeholes].

*177. Sabethes (S.) purpureus* Peryassu, 1908; *remipusculus* Dyar, 1924, new name [= *purpureus* Theobald, 1907]. Type: LECTOTYPE by present designation, only remaining specimen, broken (135), head and thorax on 1 pin, leg on point on another pin, wing on slide (1092), Juiz de Fora (Minas Gerais), 28 Oct 1907, A. Neiva (IOC,505). Bionomics: [As for *176. purpureus* Theobald, 1907].



178. *Sabethes (S.) quasicyaneus* Peryassu, 1922. Type: Female(s), Mato do Utinga, suburb of Belem (Para) (LU). Bionomics: [Larvae probably in treeholes, bamboo or possibly leaf axils].

179. *Sabethes (S.) shannoni* Cerqueira, 1961. Type: Holotype male (2062-43) with slide (2965) of associated larval and pupal skins (456), Igarape do Leao, Manaus (Amazonas), 8 Jan 1960, C. Elias and E. Viera (FH,15109). Bionomics: Larvae in epiphytic bromeliads, "bananeira brava" (*Heliconia sylvestris*) and tree trunk cut at about 1 m from ground.

180. *Sabethes (S.) spixi* Cerqueira, 1961. Type: Holotype male (2013) with genitalia slide (393,2962), Manaus, km 23 on route 17 to Caracarai (Amazonas), Oct 1959, C. Elias (FH,15106). Bionomics: [Larvae probably in bamboo, treeholes or possibly leaf axils].

181. *Sabethes (Sabethoides) confusus* (Theobald, 1903) [= *chloropterus*]. Type: Lectotype female (female "type" of *nitidus*), Para [Belem] (Para), H.E. Durham (BM; designation by Mattingly, 1958:105; see Belkin 1968:30). Bionomics: [Larvae in treeholes].

182. *Sabethes (Sabethoides) glaucodaemon* (Dyar & Shannon, 1925). Type: Holotype female, near San Alberto [?], Rio Branco (Roraima), 28 Aug 1924, J. Bequaert (USNM,27744). Bionomics: [Larvae in treeholes or bamboo; possibly in leaf axils of *Montrichardia* as stated by Lane and Cerqueira, 1942:674].

183. *Sabethes (Sabethoides) tridentatus* Cerqueira, 1961. Type: Holotype male (1403.3) with associated larval and pupal skins (62) on slide (2968); slide (422) of male genitalia missing, Igarape da Bolivia, Manaus (Amazonas), May 1956, C. Elias et al (FH,15112). Bionomics: Larvae in treeholes in forest.

184. *Sabethes (Sabethinus) aurescens* (Lutz, 1905). Type: LECTOTYPE by present designation, the specimen identified as the holotype of *aurescens* Theobald, 1907 by Belkin (1968:30); the latter name is here eliminated (see discussion under Theobald in section on authors below); Cantareira (Sao Paulo), 16 Apr 1905, A. Lutz (BM). Bionomics: [Larvae in bamboo internodes].

185. *Sabethes (Sabethinus) fabricii* Lane & Cerqueira, 1942. Type: Holotype male, Tingua (Rio de Janeiro), Jan 1941 (IOC). Bionomics: [Larvae probably in bamboo internodes or treeholes, possibly in leaf axils].

186. *Sabethes (Sabethinus) lutzianus* Lane & Cerqueira, 1942 [?= *identicus*]. Type: Holotype male, locality not specified (Rio de Janeiro); TYPE LOCALITY here restricted to Tingua (IOC). Bionomics: [Larvae probably in bamboo internodes].

187. *Sabethes (Sabethinus) intermedius* (Lutz, 1904). Type: LECTOTYPE by present designation, female marked as lectotype by John Lane, [near Sao Paulo] (Sao Paulo) (BM; see Belkin, 1968:31). Bionomics: [Larvae in bamboo internodes].

188. *Sabethes (Sabethinus) albiprivatus* (Theobald, 1907); *melanonymphe* Dyar, 1924, new name. Type: Lectotype male with thorax and 5 legs on pin, abdomen and genitalia on 1 slide, head and left wing on another, Cantareira (Sao Paulo), 16 Apr 1905, A. Lutz (BM; designation by Belkin, 1968:29). Bionomics: [Larvae in bamboo internodes].

189. *Sabethes (Sabethinus) soperi* Lane & Cerqueira, 1942. Type: Holotype male, Piraja (Bahia), Mar 1930, R.C. Shannon (IOC). Bionomics: [Larvae probably in



bamboo internodes or treeholes; possibly in leaf axils].

190. *Sabethes (Sabethinus) whitmani* Lane & Cerqueira, 1942. Type: Holotype male, Sao Joao de Petropolis, Santa Teresa (Espirito Santo), May 1940 (IOC). Bionomics: [Larvae probably in bamboo internodes or treeholes; possibly in leaf axils].

191. *Coquillettidia (Rhynchotaenia) albicosta* (Peryassu, 1908). Type: LECTOTYPE by present designation, only remaining specimen, female, Xerem (Rio de Janeiro), 28 Oct 1907 (IOC). Bionomics: [Larvae probably attached to roots of grassy vegetation in permanent or semipermanent ground waters].

192. *Coquillettidia (R.) albifera* (Prado, 1931). Type: Holotype female, marshes near Rio Pinheiros, Butantan, Sao Paulo (Sao Paulo), 23 Apr 1931, Franca (IB, 1040; antigo 72). Bionomics: [Larvae probably attached to roots of grassy vegetation in permanent or semipermanent ground waters].

193. *Coquillettidia (R.) arribalzagae* (Theobald, 1903). Type: Lectotype female, Para [Belem] (Para), H.E. Durham (BM; designation by Belkin, 1968: 11). Bionomics: [Larvae probably attached to roots of grassy vegetation in permanent or semipermanent ground waters].

194. *Coquillettidia (R.) chrysonotum* (Peryassu, 1922). Type: Syntypes males and females, Vale do Rio Doce (Espirito Santo) and Baixada Fluminense (Rio de Janeiro), Mar-Apr (Museu Nac Rio de Janeiro and IOC, tubes 431 and 432). Bionomics: [Larvae attached to roots of grassy vegetation in permanent or semipermanent ground waters].

195. *Coquillettidia (R.) hermanoi* (Lane & Coutinho, 1940). Type: Holotype female (1010), Acampamento dos Morros Azues (Mato Grosso), 6 Sept 1937, A. Bueno de Oliveira (FH,1630; tube 1461). Bionomics: [Larvae probably attached to roots of grassy vegetation in permanent or semipermanent ground waters].

196. *Coquillettidia (R.) juxtamansonia* (Chagas, 1907). Type: LECTOTYPE by present designation, female (tube 428), wing on slide (1001), Juiz de Fora (Minas Gerais), Oct 1906, A. Neiva (IOC). Bionomics: [Larvae attached to roots of grassy vegetation in permanent or semipermanent ground waters].

197. *Coquillettidia (R.) hypocindyna* (Dyar, 1918) [= *juxtamansonia*]. Type: Holotype female, [Sao Paulo] (Sao Paulo), A. Lutz (USNM,21720). Bionomics: [Larvae probably attached to roots of grassy vegetation in permanent or semipermanent ground waters].

198. *Coquillettidia (R.) lynchi* (Shannon, 1931). Type: Holotype male, Para [Belem] (Para), N.C. Davis (USNM). Bionomics: [Larvae probably attached to roots of grassy vegetation in permanent or semipermanent ground waters].

199. *Coquillettidia (R.) neivai* (Lane & Coutinho, 1940) [distinct from *nigricans*, see Belkin, Heinemann and Page, 1970:103]. Type: Holotype male (1137) with genitalia on slide (453), marked "*Mansonia chrysa*" and *Taeniorhynchus nigricans* (pinned specimen only), Juquia (Sao Paulo), 16 Jan 1939, J. Lane (FH,1676). Bionomics: [Larvae probably attached to roots of grassy vegetation in permanent and semipermanent ground waters].

200. *Coquillettidia (R.) shannoni* (Lane & Antunes, 1937). Type: Holotype female, Cuiaba (Mato Grosso), Sept 1934, J. Lane (FH,809). Bionomics: [Larvae probably attached to roots of grassy vegetation in permanent or semipermanent ground waters].

201. *Mansonia (M.) amazonensis* (Theobald, 1901). Type: Holotype female, S.S. Faraday, between Gurupa and Monte Alegre (Para), 25 Jan 1896, E.E. Austen; TYPE LOCALITY here restricted to vicinity of Gurupa (BM). Bionomics: [Larvae attached to vegetation in permanent or semipermanent ground waters].



202. *Mansonia (M.) cerqueirai* (Barreto & Coutinho, 1944). Type: Holotype male, Maracaju (Mato Grosso) (LU). Bionomics: [Larvae probably attached to vegetation in permanent or semipermanent ground waters].

203. *Mansonia (M.) chagasi* (Lima, 1935). Type: Holotype male, Bicudos (Minas Gerais), 11 Feb 1908, C. Chagas (IOC, 1956). Bionomics: [Larvae probably attached to vegetation in permanent or semipermanent ground waters].

204. *Mansonia (M.) indubitans* Dyar & Shannon, 1925. Type: Holotype female, Belem (Para) 19 Sept 1924, J. Bequaert (USNM,27746). Bionomics: [Larvae attached to vegetation (*Pistia*) in permanent or semipermanent ground waters].

205. *Mansonia (M.) pessoai* (Barreto & Coutinho, 1944). Type: Holotype male with genitalia on slide (512), marked paratype, Curitiba (Parana), G. Ramalho (FH,1822). Bionomics: [Larvae probably attached to vegetation in permanent or semipermanent ground waters].

206. *Mansonia (M.) pseudotitillans* (Theobald, 1901). Type: Lectotype female, S.S. F[araday], Breves (Para), 25 Jan 1896, E.E. Austen (BM; designation by Belkin, 1968:23). Bionomics: [Larvae probably attached to vegetation in permanent or semipermanent ground waters].

\*207. *Mansonia (M.) titillans* (Walker, 1848). Type: Holotype female, Brazil, without specified locality; TYPE LOCALITY here restricted to vicinity of Belem (Para) (BM; see Belkin, 1968:23). Bionomics: [Larvae attached to *Pistia* and floating grass].

208. *Mansonia (M.) wilsoni* (Barretto & Coutinho, 1944). Type: Holotype male, Sao Paulo (Sao Paulo) (LU, not in FMSP). Bionomics: [Larvae probably attached to vegetation in permanent and semipermanent ground waters].

209. *Uranotaenia albitarsis* Gordon & Evans, 1922 [= *calosomata*]. Type: Lectotype male (15/463) with genitalia slide, sawmill near Macapa (near Manaus) (Amazonas), 20 Jan 1922, R.M. Gordon (BM; designation by Belkin, 1968:37). Bionomics: Larvae in old iron "bath".

210. *Uranotaenia davisii* Lane, 1943. Type: Holotype male (436) with genitalia on slide (897), Salvador (Bahia), P.C.A. Antunes (FH,3557). Bionomics: [Larvae probably in permanent or semipermanent ground waters].

211. *Uranotaenia ditaenionota* Prado, 1931. Type: Holotype female, woods of Butantan, Sao Paulo (Sao Paulo), 15 July 1931, D. Yered (IB, 1131; antigo 175). Bionomics: [Larvae in pools of dirty water and in a small stream (Lane, 1943:160)].

212. *Uranotaenia burkii* Lane, 1936 [= *ditaenionota*]. Type: Holotype male (232A) with genitalia slide (32) and larval skin slide (31), [Coronel] Ponce (Mato Grosso), 24-26 July 1934 (FH,367). Bionomics: Larvae in a shaded pool with dirty water and in a small stream pool.

213. *Uranotaenia geometrica* Theobald, 1901. Type: Lectotype female, Cubatao (Sao Paulo), A. Lutz (BM; designation by Belkin, 1968:37). Bionomics: [Larvae in ground and rock pools with algae].

214. *Uranotaenia mathesoni* Lane, 1943. Type: Holotype male (1112) with genitalia on slide (895), Juquia (Sao Paulo), Nov 1938, J. Lane (FH,3554). Bionomics: [Larvae probably in permanent or semipermanent ground waters].

215. *Uranotaenia noctivaga* Neiva & Pinto, 1922 [= *nataliae*]. Type: Holotype female, Gavea, Rio de Janeiro (Guanabara) (LU; not found in IOC). Bionomics: [Larvae probably in permanent or semipermanent ground waters].

216. *Uranotaenia argenteopennis* Peryassu, 1923 [= *nataliae*]. Type: Syntype male(s) and female(s), [vicinity of Rio de Janeiro] (Guanabara) and Baixada Fluminense (Rio de Janeiro) (LU). Bionomics: Larvae in association with anophelines



[in permanent and semipermanent ground waters].

217. *Uranotaenia pallidiventer* Theobald, 1903. Type: Holotype female, Para [Belem] (Para), H.E. Durham (BM). Bionomics: [Larvae in ground pools].

218. *Orthopodomyia albicosta* (Lutz, 1904). Type: LECTOTYPE by present designation, female (2663), marked S. Paulo; type locality, Serra da Cantareira (Sao Paulo), Lutz, 1905:69 (IOC; in box 14). Bionomics: Larvae in bamboo.

\*219. *Orthopodomyia longipalpis* (Newstead & Thomas, 1910) [= *fascipes*]. Type: Lectotype female, near Manaus (Amazonas), 23 Aug 1906 (BM; designation by Zavortink, 1968:75). Bionomics: [Larvae in treeholes].

220. *Orthopodomyia townsendi* Lima, 1935 [= *fascipes*]. Type: Holotype female, Rio Tapajos, Boa Vista (Para), 11 Oct 1932, C.H.T. Townsend (IOC,582). Bionomics: [Larvae in treeholes].

221. *Orthopodomyia sampaioi* Lima, 1935. Type: Lectotype male (1861) with genitalia in capillary tube, Tijuca, Rio de Janeiro (Guanabara), June 1934, P.C. Sampaio (IOC, tube 941; designation by Zavortink, 1968:82). Bionomics: [Larvae in treeholes].

222. *Psorophora (P.) tibialis* (Robineau-Desvoidy, 1827) [= *ciliata*]. Type: Male(s) Brazil, locality not specified; TYPE LOCALITY here restricted to vicinity of Rio de Janeiro (Guanabara) (NE). Bionomics: [Larvae in rain pools].

223. *Psorophora (P.) pilipes* (Macquart, 1834) [?= *ciliata*]. Type: Female(s), locality not specified, Brazil; TYPE LOCALITY here restricted to vicinity of Rio de Janeiro (Guanabara) (NE; see Belkin, 1968:28). Bionomics: [Probably as for 222. *tibialis*].

224. *Psorophora (P.) scintillans* (Walker, 1848) [= *cilipes*]. Type: Lectotype male (45.56) with genitalia intact, Para [Belem] (Para) (BM; designation by Belkin, 1968:29). Bionomics: [Larvae in rain pools].

225. *Psorophora (P.) genumaculata* Cruz, 1907 [= *lineata*]. Type: LECTOTYPE by present designation, male (2582) without head but genitalia intact, Santos (Sao Paulo), Oct 1906, T. Ribeiro Gomes (IOC; box 9). Bionomics: [Larvae in rain pools].

226. *Psorophora (Janthinosoma) albigena* (Peryassu, 1908) [distinct from *varipes*]. Type: Holotype female (3523), Chanaan [Canaan] (Sao Paulo), M. Latif (IOC, tube 1367). Bionomics: [Larvae probably in rain pools in wooded areas].

227. *Psorophora (J.) amazonica* Cerqueira, 1960. Type: Holotype male (1443.60) with slide (2960) of larval and pupal skins (342), slide of genitalia (386) missing, Igarape do Taruma, Manaus (Amazonas), 16 June 1956, C. Elias (FH,15104). Bionomics: Larvae in a grassy pool at edge of forest.

228. *Psorophora (J.) discrucians* (Walker, 1856). Type: Syntypes male(s) and female(s), described from South America; TYPE LOCALITY here restricted to vicinity of Rio de Janeiro (Guanabara) (BM; see Belkin, 1968:26). Bionomics: [Larvae probably in rain pools in wooded areas].

229. *Psorophora (J.) arribalzagae* (Giles, 1902) [?= *discrucians*]. Type: Holotype female, Sao Paulo (Sao Paulo), A. Lutz (BM; see Belkin, 1968:25). Bionomics: [As for 228. *discrucians*].

230. *Psorophora (J.) forceps* Cerqueira, 1939. Type: Holotype male, Jacarepagua, Rio de Janeiro (Guanabara) (IOC). Bionomics: [Larvae probably in rain pools in wooded areas].

231. *Psorophora (J.) lanei* Shannon & Cerqueira, 1943. Type: Holotype female, Maracaju (Mato Grosso) (LU; not in IOC). Bionomics: [Larvae probably in rain pools in wooded areas].



232. *Psorophora (J.) lutzii* (Theobald, 1901). Type: Lectotype female, Parque do Museu [Quinta da Boa Vista], Rio de Janeiro (Guanabara), 5 Nov 1899, C. Moreira (BM; designation by Belkin, 1968:27). Bionomics: [Larvae in rain pools in wooded areas].

233. *Psorophora (Grabhamia) apicalis* (Theobald, 1903); *neoapicalis* (Theobald, 1910), new name [?= *cingulata*]. Type: Lectotype male, Rio de Janeiro (Guanabara), A. Lutz (BM; designation by Belkin, 1968:25). Bionomics: [Larvae in woodland pools, hoofprints and rarely in artificial containers].

234. *Psorophora (G.) scutipunctata* (Lutz & Neiva, 1911) [= *confinnis*]. Type: Syntypes [?], 1 or 2 females (tube 1060) and slide of wing (2347), without data; type locality [Rio] Tiete, immediately above Itapura (Sao Paulo), Jan 1909 (IOC; only 2 syntypes mentioned in original description but 3 in tube, 2 mounted on 1 pin). Bionomics: [Larvae probably in rain pools].

235. *Psorophora perterrens* (Walker, 1856) [*nomen dubium*]. Type: Holotype female, described from South America; TYPE LOCALITY here restricted to vicinity of Rio de Janeiro (Guanabara) (NE; see Stone, 1957:337-338).

236. *Aedes (Ochlerotatus) aenigmaticus* Cerqueira & Costa, 1946. Type: Holotype male, Maracaju (Mato Grosso), Jan-Feb 1938, R.C. Shannon (LU; not in IOC). Bionomics: [Larvae probably in rain pools].

237. *Aedes (O.) albifasciatus* (Macquart, 1838). Type: Holotype female, Brazil, locality not specified, 1833, C. Gaudichaud; TYPE LOCALITY here restricted to vicinity of Rio de Janeiro (Guanabara) (MNHP; see Belkin, 1968:4). Bionomics: [Larvae in temporary ground pools].

238. *Aedes (O.) crinifer* (Theobald, 1903). Type: Lectotype female, Sao Paulo (Sao Paulo), A. Lutz (BM; designation by Belkin, 1968:4). Bionomics: [Larvae in grassy rain pools and flooded grassy margins of creeks].

239. *Aedes (O.) fulvus* (Wiedemann, 1828). Type: Holotype female, Brazil, locality not specified, Freireiss; TYPE LOCALITY here restricted to Salvador (Bahia) (SNG). Bionomics: [Larvae in forest rain pools].

240. *Aedes (O.) flavicosta* (Walker, 1856) [= *fulvus*]. Type: Holotype female, Amazon region; TYPE LOCALITY here restricted to Manaus (Amazonas) (BM). Bionomics: [As for 239. *fulvus*].

241. *Aedes (O.) jacobinae* Serafim & Davis, 1933. Type: Holotype male apparently lost, only genitalia slide remaining, Rio d'Ouro, in center of Jacobina (Bahia), elev. 450 m, Dec 1931, J. Serafim (USNM; see Stone and Knight, 1956a:220). Bionomics: Larvae in streamside rock pools.

242. *Aedes (O.) lepidus* Cerqueira & Paraense, 1945. Type: Holotype male, Belo Horizonte (Minas Gerais), Nov 1943 (LU; not in IOC). Bionomics: [Larvae in artificial containers and rockholes, Cerqueira, 1957].

243. *Aedes (O.) pennai* Antunes & Lane, 1938. Type: Holotype male (970) with genitalia on 3 slides (185,186,187), Cabreuva (Sao Paulo), Apr 1937, A.R.R. (FH, 810). Bionomics: Larvae in forest rain pools.

244. *Aedes (O.) perventor* Cerqueira & Costa, 1946, Type: Holotype male, Mangaratiba (Rio de Janeiro), Dec 1938, R.C. Shannon (LU; not in IOC). Bionomics: [Larvae in crabholes, material in FH].

245. *Aedes (O.) rhyacophilus* Lima, 1933. Type: Syntypes males, females with larval exuviae and pupae, Vale do Canaa (Espírito Santo), 1932, J. Serafim; TYPE LOCALITY here restricted to Sao Joao de Petropolis (LU; not in IOC). Bionomics: Larvae in rockholes.

246. *Aedes (O.) scapularis* (Rondani, 1848). Type: Female(s), Brazil, locality



not specified; TYPE LOCALITY here restricted to vicinity of Rio de Janeiro (Guanabara) (LU; see Belkin, 1968:7). Bionomics: [Larvae in grassy rain pools].

247. *Aedes (O.) serratus* (Theobald, 1901). Type: Lectotype male with attached genitalia mount, Parque do Museu [Quinta da Boa Vista], Rio de Janeiro (Guanabara), 5 Nov 1899, C. Moreira (BM; designation by Belkin, 1968:7). Bionomics: [Larvae in grassy rain pools].

248. *Aedes (O.) mathisi* (Neveu-Lemaire, 1902) [?= *serratus*]. Type: Syntypes 3 females, Cunani (Amapa) [as French Guiana], Jan 1901, Mathis (NE; see Belkin, 1968:6). Bionomics: [As for 247. *serratus*].

249. *Aedes (F.) braziliensis* Gordon & Evans, 1922. Type: Holotype male (10.1/463), Macapa, near Manaus (Amazonas), 8 Dec 1921, R.M. Gordon (BM). Bionomics: Larvae in hollow tree stump.

250. *Aedes (Finlaya) fluviatilis* (Lutz, 1904). Type: LECTOTYPE by present designation, the female holotype of *tripunctatus* (Theobald, 1907), Rio Grande near Franca (Sao Paulo), 23 Sept 1903, A. Lutz (BM; see Belkin, 1968:5). Bionomics: [Larvae in stream bed rockholes].

251. *Aedes (F.) mediomaculatus* (Theobald, 1907) [?= *fluviatilis*]. Type: Lectotype male, Para [Belem] (Para), E.A. Goeldi (BM; designation by Belkin, 1968:6). Bionomics: [Probably as for 250. *fluviatilis*].

252. *Aedes (F.) tripunctatus* (Theobald, 1907) [?= *fluviatilis*]. Type: Holotype female, Rio Grande near Franca (Sao Paulo), 23 Sept 1903, A. Lutz (BM; see Belkin, 1968:8). Bionomics: [Larvae probably as for 250. *fluviatilis*].

\*253. *Aedes (F.) leucomelas* (Lutz, 1904); *leucocelaenus* Dyar & Shannon, 1924, new name. Type: LECTOTYPE by present designation, female marked by Theobald "Stegomyia silvestris Lutz Type", Franca (Sao Paulo), 23 Sept 1903 (BM; see Belkin, 1968:5-6). Bionomics: [Larvae in treeholes and bamboo internodes].

254. *Aedes (F.) leucophoebus* Galindo, Carpenter & Trapido, 1953. Type: Holotype male (1763.2) with slides of genitalia (2204) and associated larval and pupal skins (2205), Feijo (Acre), 4 Aug 1949 (FH,10377). Bionomics: [Larvae in treeholes].

255. *Aedes (F.) terreus* (Walker, 1856). Type: Holotype male with attached genitalia mount; described from South America, TYPE LOCALITY here restricted to vicinity of Rio de Janeiro (Guanabara) (BM). Bionomics: [Larvae in treeholes].

\*256. *Aedes (F.) oswaldi* (Lutz, 1904) [= *terreus*]. Type: LECTOTYPE by present designation, female marked by Theobald "Stegomyia cruzi Lutz Type"; locality label here reinterpreted as "[F. do] Bonito, S[erra] d[a] Bocaina [Sao Paulo]", type locality of a tabanid described by A. Lutz (see Fairchild, 1961:207); 22 May 1903 (BM; see Belkin, 1968:6). Bionomics: [Larvae in treeholes].

257. *Aedes (Howardina) aureolineatus* Berlin, 1969. Type: Holotype female, Pijaja (Bahia), May 1931 (USNM). Bionomics: [Larvae probably in treeholes].

258. *Aedes (H.) fulvithorax* (Lutz, 1904). Type: Holotype female, Ponte Ipe-Arcado (Goias) (NE). Bionomics: [Larvae in treeholes and bamboo].

259. *Aedes (Stegomyia) toxorhynchus* (Macquart, 1838) [= *aegypti*]. Type: Holotype female (10), Brazil, locality not specified, C. Gaudichaud, 1833; TYPE LOCALITY here restricted to vicinity of Rio de Janeiro (Guanabara) (MNHP;2602/33; see Belkin, 1968:8). Bionomics: [Larvae in artificial containers].

260. *Aedes (S.) exagitans* (Walker, 1856) [= *aegypti*]. Type: Holotype female (37), Para [Belem] (Para) (BM). Bionomics: [Larvae in artificial containers].

261. *Haemagogus (Longipalifer) tropicalis* Cerqueira & Antunes, 1938. Type: Holotype male, Curralinho (Para), Jan-May 1936, H.W. Kumm and A. Rabello



(LU; not in IOC). Bionomics: Larvae in treeholes.

262. *Haemagogus (Stegoconops) baresi* Cerqueira, 1960. Type: Holotype male (1607.3) with pupal slide (316;2961) but genitalia slide (332) missing, Igarape do Taruma, Manaus (Amazonas), 6 Dec 1956, C. Elias (FH,15105). Bionomics: Larvae in treeholes in dark forest.

\*263. *Haemagogus (S.) capricornii* Lutz, 1904. Type: Neotype female reared from egg, Horto Florestal, Serra da Cantareira (Sao Paulo), Apr 1944 (LU, not in IOC or FH; designation by Cerqueira and Lane, 1945:286). Bionomics: [Larvae in treeholes].

264. *Culex (Lutzia) brasiliae* (Dyar, 1923) [= *bigoti*]. Type: Lectotype male with genitalia slide (1778), Sao Paulo (Sao Paulo), A. Lutz (USNM; designation by Stone and Knight, 1957a:44). Bionomics: [Larvae in permanent or semipermanent ground waters].

265. *Culex (C.) abnormalis* Lane, 1936. Type: Holotype male (289) with genitalia on slide (289;184a), Coronel Ponce (Mato Grosso), 17 July-27 Sept 1934 (FH,361). Bionomics: Larvae in turbid water next to a creek and in hoofprints with clean water, in full sun.

266. *Culex (C.) acharistus* Root, 1927. Type: Lectotype fragmentary male (64-1) with genitalia on slide, Agua Limpa, near Juiz de Fora (Minas Gerais), 27 Mar 1925, F.M. Root (USNM; designation by Stone and Knight, 1957a:42). Bionomics: Larvae in marshy expansions of mountain streams and in side pools of a small rapid river.

267. *Culex (C.) airozai* Lane, 1945. Type: Holotype male with attached genitalia mount, Rio Parauari (Amazonas), Mar 1937, C. Worontzow (FH,4297). Bionomics: [Larvae probably in permanent or semipermanent ground waters].

268. *Culex (C.) brami* Forattini, Rabello & Lopes, 1967. Type: Holotype male (15844) with genitalia on slide (3109), Boraceia, municipio Salesopolis (Sao Paulo), Nov 1965, E.X. Rabello (FH). Bionomics: Pupae in peridomestic artificial containers.

269. *Culex (C.) carcinoxenus* Castro, 1932. Type: LECTOTYPE by present designation, male "cotype", with genitalia on slide (4186), Bertioga (Sao Paulo), July 1931, G.M. de Oliveira Castro (IOC; no material in IBSP where "typos" (presumably 1 male and 1 female) were originally deposited without designation of a holotype). Bionomics: Larvae in crabholes (*Cardisoma guanhumi*).

270. *Culex (C.) corniger* Theobald, 1903. Type: Lectotype male with attached genitalia mount, Para [Belem] (Para), E.A. Goeldi (BM; designation by Belkin, 1968:15). Bionomics: [Larvae in ground pools, stream bed rock pools, treeholes, bamboo, artificial containers and flower bracts].

271. *Culex (C.) deanei* Correa & Ramalho, 1959. Type: Holotype male (S.2-6) with genitalia and larval and pupal skins (SPM-62) on 1 slide (2576), Campo de Marte, Santana, Sao Paulo (Sao Paulo), R.R. Correa and G.R. Ramalho (FH, 13189). Bionomics: Larvae in ground pools.

272. *Culex (C.) bilineatus* Theobald, 1903 [?= *dolosus*]. Type: Lectotype male with attached genitalia mount; TYPE LOCALITY here restricted to Sao Paulo (Sao Paulo), A. Lutz (BM; designation by Belkin, 1968:13). Bionomics: [Larvae in permanent or semipermanent ground waters].

273. *Culex (C.) foliaceus* Lane, 1945. Type: Holotype male (5643) with genitalia on slide (1288), Ares, near Sao Jose de Mipibu (Rio Grande do Norte), Oct 1935 (FH,5926). Bionomics: [Larvae in crabholes, Stone, 1950:239].

274. *Culex (C.) forattinii* Correa & Ramalho, 1959. Type: Holotype male (197.6)



with genitalia on slide (2575), Santa Cruz do Rio Pardo (Sao Paulo), Feb 1952 (FH,13188). Bionomics: Larvae in a cemetery vase.

275. *Culex (C.) lygrus* Root, 1927. Type: Lectotype male (115.2) with genitalia slide, Mage (Rio de Janeiro), 21 June 1925, F.M. Root (USNM; designation by Stone and Knight, 1957a:53). Bionomics: Larvae in small ditches and pools with abundant vegetation.

276. *Culex (C.) mauesensis* Lane, 1945. Type: Holotype male with attached genitalia mount, Maues (Amazonas), Feb 1937, C. Worontzow (FH,4885). Bionomics: [Larvae probably in permanent or semipermanent ground waters].

277. *Culex (C.) oswaldoi* Forattini, 1965. Type: Holotype male (12) with genitalia on slide (RB62-290), Macapuyba, Natal (Rio Grande do Norte), 23 July 1943, MacCreary (USNM,67550). Bionomics: Larva in quarry hole.

278. *Culex (C.) paramaxi* Duret, 1968. Type: Holotype male (672), Engenheiro Dolabela (Minas Gerais), 6 May 1964 (A). Bionomics: [Larvae probably in permanent or semipermanent ground waters].

279. *Culex (C.) aestuans* Wiedemann, 1828 [= *quinquefasciatus*]. Type: Lectotype male with genitalia slide, Brazil, locality not specified; TYPE LOCALITY here restricted to Salvador (Bahia) (NMW; designation by Stone, 1958:186). Bionomics: [Larvae in artificial containers and polluted ground waters].

280. *Culex (C.) renatoi* Lane & Ramalho, 1960. Type: Holotype male (1372-9) with genitalia and larval and pupal skins on slide (2423), Bairro Sao Miguel Paulista, Sao Paulo (Sao Paulo), 5 Jan 1956, F. Rosario (FH,12058). Bionomics: Larvae in terrestrial bromeliads.

281. *Culex (C.) spinosus* Lutz, 1905. Type: LECTOTYPE by present designation, male mounted on 2 slides, Brazil, Dr. Lutz; type locality Sao Paulo (Sao Paulo) (BM, see Belkin, 1968:20; no material of original series in IOC). Bionomics: Larvae in leaf axils of *Eriocaulon vaginatum* and *Eryngium alvofolium*.

282. *Culex (C.) virgultus* Theobald, 1901 (*nomen dubium*). Type: Syntypes 2 males, Parque do Museu [Quinta da Boa Vista], Rio de Janeiro (Guanabara), 5 Nov 1899, C. Moreira (LU; see Belkin, 1968:21). Bionomics: [Larvae in permanent or semipermanent ground pools].

283. *Culex (Melanoconion) gordonii* Evans, 1924 [= *albinensis*]. Type: Holotype male (16.1/463) with attached wing mount and 3 genitalia slides, the Bosque, Manaus (Amazonas), 29 Dec 1921, R.M. Gordon (BM). Bionomics: Larvae in a ground pool.

284. *Culex (Mel.) andricus* Root, 1927. Type: Holotype male, near Lassance (Minas Gerais), 13 May 1925, F.M. Root (USNM). Bionomics: Larvae in small pond full of vegetation.

285. *Culex (Mel.) aureonotatus* Duret & Barreto, 1956. Type: Holotype male, Fazenda Monte Alegre, Ribeirao Preto (Sao Paulo), 27 Dec 1954, M.P. Barreto and J.P. Duret (FMRP). Bionomics: [Larvae probably in permanent or semipermanent ground waters].

286. *Culex (Mel.) bahiensis* Duret, 1969. Type: Holotype male (2427), Urucuca (Bahia), Aug 1953, J.P. Duret (A). Bionomics: [Larvae probably in permanent or semipermanent ground waters].

287. *Culex (Mel.) innominatus* Evans, 1924 [= *bastagarius*]. Type: Lectotype male (D3) with attached genitalia mount, River Amazon, to or from Manaus, 1915, A.A. Clark; TYPE LOCALITY here restricted to Itacoatiara (Amazonas) (BM; designation by Belkin, 1968:16). Bionomics: [Larvae probably in permanent or semipermanent ground waters].



288. *Culex (Mel.) bequaerti* Dyar & Shannon, 1925. Type: Holotype male, Sororoca, Rio Branco (Roraima), 1 Sept 1924, J.C. Bequaert (USNM,27745). Bionomics: [Larvae probably in permanent or semipermanent ground waters].

289. *Culex (Mel.) bifoliolatus* Duret & Barreto, 1956. Type: Holotype male, Fazenda Monte Alegre, Ribeirao Preto (Sao Paulo), 2 June 1953, M.P. Barreto and J.P. Duret (FMRP). Bionomics: [Larvae probably in permanent or semipermanent ground waters].

290. *Culex (Mel.) mojuensis* Duret & Damasceno, 1955 [= *breviculus*]. Type: Holotype male (Br49,E4), Oriboca, Rio Guajara (Para), 23 Aug 1953, R.G. Damasceno and J.P. Duret (Duret). Bionomics: [Larvae probably in permanent or semipermanent ground waters].

291. *Culex (Mel.) chrysothorax* (Peryassu, 1908). Type: LECTOTYPE by present designation, male with genitalia slide (2331), Copacabana, Rio de Janeiro (Guanabara), Oct 1907 (IOC,2033). Bionomics: Larvae probably in ground pools only and not found in bromeliads also as stated by Peryassu.

292. *Culex (Mel.) contei* Duret, 1968. Type: Holotype male (2226), Sao Miguel do Guama (Para), 9 July 1963, J.P. Duret (A). Bionomics: [Larvae probably in permanent or semipermanent ground waters].

293. *Culex (Mel.) cristovai* Duret, 1968. Type: Holotype male (1883), Caracarai (Roraima), 7 July 1964 (A). Bionomics: [Larvae probably in permanent or semipermanent ground waters].

294. *Culex (Mel.) exedrus* Root, 1927 [= *dunni*]. Type: Lectotype male (30.1), head missing, Porto das Caixas (Rio de Janeiro), 24 Feb 1925, F.M. Root (USNM; designation by Stone and Knight, 1957a:49). Bionomics: Larvae in dense aquatic vegetation in rivers, lagoons and ponds.

295. *Culex (Mel.) dyius* Root, 1927. Type: Holotype male genitalia only, adult lost, probably coastal lowlands (Rio de Janeiro), May or June 1925, F.M. Root (USNM). Bionomics: [Larvae probably in permanent or semipermanent ground waters].

296. *Culex (Mel.) manaosensis* Evans, 1924 [= *eastor*]. Type: Holotype male, wharf, Manaus (Amazonas), 5 Dec 1923, A.A. Clark (BM). Bionomics: [Larvae probably in swamps].

297. *Culex (Mel.) ernanii* Duret, 1968. Type: Holotype male (1730), Boa Vista (Roraima), 4 July 1964, J.P. Duret (A). Bionomics: [Larvae probably in permanent or semipermanent ground waters].

298. *Culex (Mel.) evansae* Root, 1927. Type: Lectotype male (34) with genitalia slide (34a), Mage (Rio de Janeiro), 26 Feb 1925, N.C. Davis (USNM; designation by Stone and Knight, 1957a:49). Bionomics: Larvae in small "jungle" pools.

299. *Culex (Mel.) fasciolatus* (Lutz, 1904). Type: Syntypes 2 females (Lutz, 1905), wooded mountains near Sao Paulo (Sao Paulo) (possibly in Lutz collection in IOC). Bionomics: Larvae in swamps.

300. *Culex (Mel.) faurani* Duret, 1968. Type: Holotype male (1940), near Manaus (Amazonas), 28 June 1963, J.P. Duret (A). Bionomics: [Larvae probably in permanent or semipermanent ground waters].

301. *Culex (Mel.) flochi* Duret, 1969 [probably not *Melanoconion*]. Type: Holotype male (2283), Rio Moju, Belem (Para), 21 Aug 1953, J.P. Duret and R.G. Damasceno (A). Bionomics: [Larvae probably in bromeliads].

302. *Culex (Mel.) humilis* Theobald, 1901. Type: Lectotype male, genitalia apparently lost, Sao Paulo (Sao Paulo), A. Lutz (BM; designation by Belkin, 1968:16). Bionomics: [Larvae in stream bed pools].



303. *Culex (Mel.) inadmirabilis* Dyar, 1928. Type: Holotype male, Sao Paulo (Sao Paulo), A. Lutz (USNM,40776). Bionomics: [Larvae probably in permanent or semipermanent ground waters].

304. *Culex (Mel.) indecorabilis* (Theobald, 1903). Type: Lectotype female, Para [Belem] (Para), H.E. Durham (BM; designation by Belkin, 1968:16). Bionomics: Larvae probably in permanent or semipermanent ground waters].

305. *Culex (Mel.) cenus* Root, 1927 [= *intrincatus*]. Type: Lectotype male (115-1) with genitalia slide, Mage (Rio de Janeiro), 21 June 1925 (USNM,40527; designation by Stone and Knight, 1957a:45). Bionomics: Larvae in woodland pools, roadside ditch and side eddies of a river.

306. *Culex (Mel.) isabelae* Duret, 1968. Type: Holotype male (1925), Caracarai (Roraima), 3 July 1964, J.P. Duret (A). Bionomics: [Larvae probably in permanent or semipermanent ground waters].

307. *Culex (Mel.) johnnyi* Duret, 1968. Type: Holotype male (723), Rio Preto, municipio Joao Goulard (Amazonas), 18 July 1964, J.P. Duret (A). Bionomics: [Larvae probably in permanent or semipermanent ground waters].

308. *Culex (Mel.) kerri* Duret, 1968. Type: Holotype male (1858), Rio Preto, municipio Joao Goulard (Amazonas), 17 July 1964, J.P. Duret (A). Bionomics: [Larvae probably in permanent or semipermanent ground waters].

309. *Culex (Mel.) lugens* Lutz, 1905. Type: Syntypes male(s) and female(s), 1 of each remaining in collection (2610), Lagoa (Sao Paulo), 3 Feb 1904, A. Lutz (IOC; in box 6). Bionomics: Larvae in swamps.

310. *Culex (Mel.) nigrescens* (Theobald, 1907). Type: Holotype male, Santo Amaro, Sao Paulo (Sao Paulo), 1 Nov 1900, A. Lutz (BM). Bionomics: [Larvae probably in permanent or semipermanent ground waters].

311. *Culex (Mel.) clarki* Evans, 1924 [= *nigrescens*]. Type: Lectotype male (C4) with attached wing mount and genitalia slide, River Amazon (Amazonas), 1915, A.A. Clark; TYPE LOCALITY here restricted to Manaus (Amazonas) (BM; designation by Belkin, 1968:14). Bionomics: [As for 310. *nigrescens*].

312. *Culex (Mel.) nigricorpus* (Theobald, 1901). Type: Lectotype female, Itacoatiara (Amazonas), 7 Feb 1896, E.E. Austen (BM; designation by Belkin, 1968:18). Bionomics: [Larvae probably in permanent or semipermanent ground waters].

313. *Culex (Mel.) nigrimacula* Lane & Whitman, 1943 [probably not *Melanoconion*]. Type: Holotype male, vicinity of Rio de Janeiro (Guanabara), Sept 1940, L. Whitman (LU). Bionomics: Larvae in broad-leaved bromeliads.

314. *Culex (Mel.) ocellatus* Theobald, 1903 [probably not *Melanoconion*]. Type: Holotype male, Sao Paulo (Sao Paulo), A. Lutz (BM; see Belkin, 1968:18). Bionomics: Larvae in bromeliads.

315. *Culex (Mel.) automartus* Root, 1927 [= *ocellatus*]. Type: Holotype male, Botanical Garden, Rio de Janeiro (Guanabara), 24 May 1925, F.M. Root (USNM). Bionomics: Pupa in bromeliad.

316. *Culex (Mel.) oedipus* Root, 1927. Type: Lectotype male (8-1) with genitalia slide, Mage (Rio de Janeiro), 4 Feb 1925, F.M. Root (USNM; designation by Rozeboom and Komp, 1950:94). Bionomics: Larvae in "jungle" pools.

317. *Culex (Mel.) plectoporpe* Root, 1927 [= *phlogistus*]. Type: Lectotype male (109-1), Bangu, Rio de Janeiro (Guanabara), 11 June 1925, F.M. Root (USNM; designation by Stone and Knight, 1957a:55). Bionomics: Larvae in ditch in small pools full of grass and water weeds.

318. *Culex (Mel.) putumayensis* Matheson, 1934. Type: Holotype male with genitalia slide, Amazon River, 7 Aug 1920, J.C. Bradley; TYPE LOCALITY here



restricted to Santo Antonio do Ica (Amazonas) (USNM,50353). Bionomics: [Larvae in permanent or semipermanent ground waters].

319. *Culex (Mel.) rachoui* Duret, 1968. Type: Holotype male (2258), Paragominas, municipio Capim (Para), 24 June 1964, J.P. Duret (A). Bionomics: [Larvae probably in permanent or semipermanent ground waters].

320. *Culex (Mel.) serratimarge* Root, 1927. Type: Holotype male, Sant'Anna (Rio de Janeiro), 27 Apr 1925 (USNM). Bionomics: Larvae in a "jungle" pool.

321. *Culex (Mel.) silvai* Duret, 1968. Type: Holotype male (85), Caracarai (Roraima), 6 July 1964, J.P. Duret (A). Bionomics: [Larvae probably in permanent or semipermanent ground waters].

322. *Culex (Mel.) theobaldi* (Lutz, 1904). Type: LECTOTYPE by present designation, female (next to large pin) on mount with another female, Lagoa (Sao Paulo), 6 Mar 1904, A. Lutz (BM; see Belkin, 1968:20-21). Bionomics: [Larvae in shaded roadside borrow pit].

323. *Culex (Mel.) chrysothorax* (Newstead & Thomas, 1910) [= *theobaldi*]. Type: Lectotype female (160), inner Flores swamp, Pensador, near Manaus (Amazonas), 12 July 1906 (BM; designation by Belkin, 1968:14). Bionomics: [As for 322. *theobaldi*].

324. *Culex (Mel.) thomasi* Evans, 1924. Type: Holotype male (8.1) with attached wing mount and 4 slides of genitalia, Manaus (Amazonas), 1910, H.W. Thomas (BM). Bionomics: Larvae in swamp water from "Amatory" [?].

325. *Culex (Mel.) trilobulatus* Duret & Barreto, 1956. Type: Holotype male, Rio Tamandua, Ribeirao Preto (Sao Paulo), Nov 1954, M.P. Barreto and J.P. Duret (FMRP). Bionomics: [Larvae probably in permanent or semipermanent ground waters].

326. *Culex (Mochlostyrax) megapus* Root, 1927 [= *alogistus*]. Type: Holotype male destroyed, only genitalia slide remaining, mountains near Angra dos Reis (Rio de Janeiro), Jan 1925, N.C. Davis (USNM). Bionomics: Larva in "jungle" pool.

327. *Culex (Mochl.) galvai* Duret, 1968. Type: Holotype male (2414), Chere (Rio de Janeiro), 15 July 1953, J.P. Duret (A). Bionomics: [Larvae probably in permanent or semipermanent ground waters].

328. *Culex (Mochl.) innovator* Evans, 1924. Type: Lectotype male (D4) with attached wing mount and 4 genitalia slides, River Amazon, to or from Manaus, 1915, A.A. Clark; TYPE LOCALITY here restricted to Itacoatiara (Amazonas) (BM; designation by Belkin, 1968:16). Bionomics: [Larvae probably in permanent or semipermanent ground waters].

329. *Culex (Mochl.) palaciosi* Duret, 1968. Type: Holotype male (1817), Boa Vista (Roraima), 8-9 July 1964, J.P. Duret (A). Bionomics: [Larvae probably in permanent or semipermanent ground waters].

330. *Culex (Microculex) albipes* Lutz, 1904. Type: Holotype female, [Ilha de] Itaparica (Bahia) (NE; no specimens in IOC or BM). Bionomics: Larva in bromeliads.

331. *Culex (Micr.) aphyllactus* Root, 1927. Type: Lectotype male (79) with only genitalia slide remaining, Serra dos Orgaos, woods near Rio Soberbo at crossing of railroad from Mage to Teresopolis (Rio de Janeiro), 1 May 1925, F.M. Root (USNM; designation by Stone and Knight, 1957a:43). Bionomics: Larvae in bromeliads.

332. *Culex (Micr.) aureus* Lane & Whitman, 1951. Type: Holotype male, Rio de Janeiro (Guanabara), Aug 1940, L. Whitman (LU). Bionomics: Larvae in fallen epiphytic tank bromeliad.

333. *Culex (Micr.) carioca* Lane & Whitman, 1951. Type: Holotype male, Rio de Janeiro (Guanabara), Sept 1940, L. Whitman (LU). Bionomics: Larvae in tank bro-



meliad.

334. *Culex (Micr.) trychnus* Root, 1927 [= *consolator*]. Type: Lectotype male (79-2) with genitalia on slide, Serra dos Orgaos, woods near Rio Soberbo at crossing of railroad between Mage and Teresopolis (Rio de Janeiro), 1 May 1925, F.M. Root (USNM; designation by Stone and Knight, 1957a:57). Bionomics: Larvae in bromeliads.

335. *Culex (Micr.) davisii* Kumm, 1933. Type: Males, females, larvae, Salvador (Bahia), 1931 (LU). Bionomics: Larvae in bromeliads.

336. *Culex (Micr.) dubitans* Lane & Whitman, 1951. Type: Holotype male, Rio de Janeiro (Guanabara), Oct or Dec 1940, L. Whitman (LU). Bionomics: Larvae in tank bromeliad.

337. *Culex (Micr.) gairus* Root, 1927. Type: Lectotype male (22c) with slides of male genitalia and associated larval and pupal skins, Botanical Garden, Rio de Janeiro (Guanabara), 15 Feb 1925, F.M. Root (USNM; designation by Stone and Knight, 1957a:50). Bionomics: Larvae in bromeliads.

338. *Culex (Micr.) hedys* Root, 1927. Type: Holotype male, destroyed except for genitalia slide, Angra dos Reis (Rio de Janeiro), Jan 1925, N.C. Davis (USNM). Bionomics: Larvae in bromeliads.

339. *Culex (Micr.) imitator* Theobald, 1903. Type: Holotype male with attached genitalia mount, Sao Paulo (Sao Paulo), A. Lutz (BM). Bionomics: Larvae in bromeliads.

\*340. *Culex (Micr.) argenteoumbrosus* (Theobald, 1907) [= *imitator*]. Type: Lectotype male with genitalia slide, Rio de Janeiro (Guanabara), Apr 1903, E.A. Goeldi (BM; designation by Belkin, 1968:13). Bionomics: [Probably as for 339. *imitator*].

341. *Culex (Micr.) retrosus* Lane & Whitman, 1951 [= ssp. of *imitator*]. Type: Holotype male, Rio de Janeiro (Guanabara), Sept 1939 or Oct 1940, L. Whitman (LU). Bionomics: Larvae in terrestrial tank bromeliads.

342. *Culex (Micr.) fuscatus* Lane & Whitman, 1951 [= ssp. of *inimitabilis*]. Type: Holotype male, Rio de Janeiro (Guanabara), Oct 1940, L. Whitman (LU). Bionomics: Larvae in epiphytic tank bromeliad.

343. *Culex (Micr.) intermedius* Lane & Whitman, 1951. Type: Holotype male, Rio de Janeiro (Guanabara), Nov 1940, L. Whitman (LU). Bionomics: Larvae in tank bromeliads.

344. *Culex (Micr.) lanei* Coutinho & Forattini, 1962. Type: Holotype male (1B(6)7), with attached genitalia mount and slide of larval and pupal skins (2941, marked cotype), Bertioga, municipio Santos (Sao Paulo), Aug 1961, O.P. Forattini (FH,15062). Bionomics: Larvae in artificial containers placed in a forest.

345. *Culex (Micr.) microphyllus* Root, 1927. Type: Lectotype male (92-1) with genitalia on slide, Mage (Rio de Janeiro), 26 May 1925, F.M. Root (USNM; designation by Stone and Knight, 1957a:53). Bionomics: Larvae in bromeliads.

346. *Culex (Micr.) neglectus* Lutz, 1904. Type: Lectotype male with genitalia on slide (783;108-34), Serra da Cantareira (Sao Paulo), 12-II-04, A. Lutz (USNM; designation by Lane in Lane and Whitman, 1951:364). Bionomics: Larvae in bamboo.

347. *Culex (Micr.) pleuristriatus* Theobald, 1903. Type: Lectotype female, Sao Paulo (Sao Paulo), A. Lutz (BM; designation by Belkin, 1968:19). Bionomics: [Larvae in terrestrial tank bromeliads].

348. *Culex (Micr.) reducens* Lane & Whitman, 1951. Type: Holotype male, Rio de Janeiro (Guanabara), Sept 1940, L. Whitman (LU). Bionomics: [Larvae probably in bromeliads].



349. *Culex (Micr.) shopei* Forattini & Toda, 1966. Type: Holotype male (46U12) with slides of male genitalia (3107) and larval and pupal skins (3107), Utinga, Belem (Para), 4 Mar 1965, A. Toda (FH,15841 and 15842). Bionomics: Larvae in bromeliads.

350. *Culex (Micr.) worontzowi* Pessoa & Galvao, 1936. Type: Holotype male (1,Nt5), Tabatinguera (Sao Paulo), C. Worontzow (FMSP). Bionomics: Larvae in bromeliads.

351. *Culex (Aedinus) accelerans* Root, 1927. Type: Holotype male, Porto das Caixas (Rio de Janeiro), 15 Apr 1925, F.M. Root (USNM). Bionomics: Larvae in dense vegetation in lagoon connected to river.

\*352. *Culex (Aed.) amazonensis* (Lutz, 1905). Type: Syntypes males and females, Amazon River below Manaus (Amazonas), Lindenberg (LU; not in IOC). Bionomics: [Larvae in swamps, margins of lakes and permanent pools].

353. *Culex (Aed.) hildebrandi* Evans, 1923 [= *amazonensis*]. Type: Holotype male (1/467) with slide of wing and 2 slides of genitalia, River Amazon on S.S. "Hildebrand" on way to Manaus, 1922, A.A. Clark; TYPE LOCALITY here restricted to Itacoatiara (Amazonas) (BM). Bionomics: [Probably as for 352. *amazonensis*].

354. *Culex americanus* (Neveu-Lemaire, 1902) [*nomen dubium*; possibly = *amazonensis*]. Type: Syntypes 4 females, Cunani (Amapa) [as French Guiana], Jan 1901, Mathis (NE; see Belkin, 1968:12-13). Bionomics: [Probably as for 352. *amazonensis*].

355. *Culex (Aed.) clastrieri* Casal & Garcia, 1968. Type: Holotype male, Belem (Para), 29 Nov 1959, Eber and Evangelista (Casal). Bionomics: [Larvae probably in swamps].

356. *Culex (Anoedioporpa) belemensis* Duret & Damasceno, 1955. Type: Holotype male (Br15,E10), Belem (Para), 19 Aug 1953, R.G. Damasceno and J.P. Duret (Duret). Bionomics: [Larvae probably in treeholes].

357. *Culex (Anoed.) canaanensis* Lane & Whitman, 1943. Type: Holotype male, Sao Joao de Petropolis, Vale do Canaa (Espirito Santo), Apr or July, 1940, L. Whitman (LU). Bionomics: [Larvae probably in treeholes].

358. *Culex (Anoed.) damascenoi* Duret, 1969. Type: Holotype male (2275), Rio Preto, municipio Joao Goulard (Amazonas), 18 July 1964, J.P. Duret (A). Bionomics: [Larvae probably in treeholes].

359. *Culex (Anoed.) luteopleurus* (Theobald, 1903). Type: Holotype female, [Belem] (Para), H.E. Durham (BM). Bionomics: [Larvae probably in treeholes].

360. *Culex (Anoed.) originator* Gordon & Evans, 1922. Type: Lectotype male (13.2/463) with genitalia on 2 slides, 0.5 mi in forest, Macapa, near Manaus (Amazonas), 21 Dec 1921, R.M. Gordon (BM; designation by Belkin, 1968:18). Bionomics: Larvae in treehole, "Carapana uba".

361. *Culex (Carrollia) anduzei* Cerqueira & Lane, 1944. Type: Holotype male, Rio Maues (Amazonas), Feb 1937, C. Worontzow (FH,4099). Bionomics: [Larvae probably in treeholes, bamboo or plant material on ground].

362. *Culex (Car.) antunesi* Lane & Whitman, 1943. Type: Holotype male, Sao Joao de Petropolis, Vale do Canaa (Espirito Santo), Apr or May 1940, L. Whitman (LU). Bionomics: Larvae in bamboo internodes.

\*363. *Culex (Car.) iridescens* (Lutz, 1905). Type: Neotype male with genitalia on slide (222), Serra da Cantareira (Sao Paulo), Apr 1938, M. Sanches, E. Coimbra and H. Guimaraes (FH,953; contrary to interpretation of Belkin, 1968:16, the neotype designation of Antunes and Ramos, 1939:380-381 is probably correct as



the Lutz material in IOC may not be part of type series). Bionomics: Larvae in bamboo.

364. *Culex (Car.) soperi* Antunes & Lane, 1937. Type: Holotype male (886), genitalia on 2 slides (99,100), Perus (Sao Paulo), 23 Apr 1937 (FH,721). Bionomics: [Larvae in bamboo internodes].

365. *Culex (Car.) wilsoni* Lane & Whitman, 1943. Type: Holotype male, Sao Joao de Petropolis, Vale do Canaa (Espirito Santo), Apr 1940, L. Whitman (LU). Bionomics: Larvae in bamboo internodes.

366. *Culex pallipes* Robineau-Desvoidy, 1827 [*nomen dubium*]. Type: Female(s), Brazil, locality not specified; TYPE LOCALITY here restricted to vicinity of Rio de Janeiro (Guanabara) (NE; see Belkin, 1968:19).

367. *Culex molestus* Kollar, 1832 [*nomen dubium*]. Type: Male(s) and female(s), Rio de Janeiro (Guanabara) (NE).

368. *Corethrella confusa* Lane, 1939 [?= *appendiculata*]. Type: Holotype male (1080) with genitalia on slide (279), Inhumas (Goias), 19 Apr 1935, J. Paternostro (FH). Bionomics: Pupa in treehole.

369. *Corethrella bromelicola* Lane, 1939. Type: Holotype female (874) with pupal skin on point and part of larval skin on slide (203), Poco Grande, Juquia (Sao Paulo), Nov 1938, J. Lane (FH). Bionomics: Larva in epiphytic bromeliad.

370. *Corethrella cardosoi* Lane, 1942. Type: Holotype male (3297) with attached genitalia mount, Casa Grande (Sao Paulo), Dec 1940 (FH). Bionomics: [Larvae probably in bromeliads or ground waters].

371. *Corethrella edwardsi* Lane, 1942. Type: Holotype female (3334), locality not specified (Mato Grosso), July 1939; TYPE LOCALITY here restricted to Salobra (FH,1206). Bionomics: [Larvae probably in ground waters or bromeliads].

372. *Corethrella flavitibia* Lane, 1939. Type: Holotype female (1137), Juquia (Sao Paulo), Jan 1939, J. Lane (FH,1067). Bionomics: [Larvae in bromeliads].

373. *Corethrella fulva* Lane, 1939. Type: Holotype male (868) with attached genitalia mount, Agua Fria, Perus (Sao Paulo), June 1937, Ramalho and Vieira (FH). Bionomics: Larvae in epiphytic bromeliads.

374. *Corethrella infuscata* Lane, 1939. Type: Holotype female (1153), Juquia (Sao Paulo), 20 Jan 1939, J. Lane (FH,1028). Bionomics: [Larvae in bromeliads].

375. *Corethrella kummi* Lane, 1942. Type: Holotype female, locality not specified (Bahia), 1931, H.W. Kumm; TYPE LOCALITY restricted to vicinity of Salvador (BM). Bionomics: [Larvae probably in ground waters or bromeliads].

376. *Corethrella lopesi* Lane, 1942. Type: Holotype male (3282), Japuiba, Angra dos Reis (Rio de Janeiro), Mar 1940, H. Sousa Lopes and J. Lane (FH). Bionomics: [Larvae probably in bromeliads or ground waters].

377. *Corethrella pillosa* Lane, 1939. Type: Holotype male (872) with genitalia on slide (202), Poco Grande, Juquia (Sao Paulo), 12 Dec 1938 (FH). Bionomics: [Larvae probably in bromeliads or ground waters].

378. *Corethrella selvicola* Lane, 1939. Type: Holotype male (1146), Juquia (Sao Paulo), 16-20 Jan 1939, J. Lane (FH,1030). Bionomics: [Larvae in running water and epiphytic bromeliads, Lane and Cerqueira, 1958b:562].

379. *Corethrella striata* Lane, 1942. Type: Holotype female (3314), Palmeira (Sao Paulo), Mar 1941, J.O. Coutinho (FH). Bionomics: [Larvae probably in bromeliads or ground waters].

380. *Corethrella tarsata* Lane, 1942. Type: Holotype male with attached genitalia mount, Camacari (Bahia), 1931, H.W. Kumm (BM). Bionomics: [Larvae probably in bromeliads].



381. *Corethrella travassosi* Lane, 1942. Type: Holotype female (1206), Salobra (Mato Grosso), July 1939 (FH,3266). Bionomics: [Larvae probably in bromeliads or ground waters].
382. *Corethrella vittata* Lane, 1939. Type: Holotype male (1042) with genitalia slide (268), Juquia (Sao Paulo), 16-19 Jan 1939, J. Lane (FH). Bionomics: [Larvae probably in bromeliads].
383. *Corethrella whitmani* Lane, 1942. Type: Holotype female (3311), locality not specified (Espirito Santo), Aug 1940, L. Whitman; TYPE LOCALITY here restricted to Sao Joao de Petropolis (FH). Bionomics: [Larvae in bromeliads].
384. *Lutzomiops alticola* (Lane, 1939). Type: Holotype male (378-M-18) with genitalia slide (208), Campos do Jordao (Sao Paulo), elev. 1700 m, 13 Jan 1936, F. Lane (FH,881). Bionomics: [Larvae probably in bromeliads].
385. *Lutzomiops amazonicus* (Lane, 1939). Type: Holotype female, Porto Velho, Rio Madeira (Rondonia, as Amazonas), Mar-Apr 1931, R.C. Shannon (USNM). Bionomics: [Larvae probably in bromeliads or ground waters].
386. *Lutzomiops barretto* (Lane, 1942). Type: Holotype male (461), Casa Grande (Sao Paulo), Sept 1940, M.P. Barretto (FH,3367). Bionomics: [Larvae probably in bromeliads or ground waters].
387. *Lutzomiops coutinho* (Lane, 1942). Type: Holotype male (3365) with attached genitalia mount, Palmeira (Sao Paulo), Mar 1941, J.O. Coutinho (FH). Bionomics: [Larvae probably in bromeliads or ground waters].
388. *Lutzomiops niger* (Lane, 1939) [= *davisi*]. Type: Holotype male (875), only 1 leg left on pin, genitalia (204) on slide together with those of paratype (877), Maracaju (Mato Grosso), May 1937, R.C. Shannon (FH). Bionomics: [Larvae in ground waters].
389. *Lutzomiops iridescens* (Lane, 1939). Type: Holotype female (1148), Juquia (Sao Paulo), 19 Jan 1939, J. Lane (FH,1046). Bionomics: [Larvae in running water, Lane and Cerqueira, 1958b:565].
390. *Lutzomiops juquianus* (Lane, 1939). Type: Holotype female (873), Poco Grande, Juquia (Sao Paulo), 14 Dec 1938, J. Lane (FH). Bionomics: [Larvae in ground pools].
391. *Lutzomiops lutzi* (Lane, 1942). Type: Holotype female (3362), Jaragua (Sao Paulo), Sept 1940, M.P. Barretto (FH). Bionomics: [Larvae probably in bromeliads or ground waters].
392. *Lutzomiops manaosensis* Lane & Cerqueira, 1958. Type: Holotype male (406-13) with associated larval and pupal skins on slide, genitalia not located, near Manaus (Amazonas), N.L. Cerqueira (FH,13193). Bionomics: Larvae in swamps and running water.
393. *Lutzomiops nigrescens* (Lane, 1942). Type: Holotype female (3363), Mage (Rio de Janeiro), 18 Mar 1940, R.C. Shannon (FH). Bionomics: [Larvae probably in bromeliads or ground waters].
394. *Sayomyia braziliensis* (Theobald, 1901). Type: Holotype female, represented by slide of 1 wing and 1 leg, Brazil, locality not specified, A. Lutz; TYPE LOCALITY here restricted to Sao Paulo (Sao Paulo) (BM). Bionomics: [Larvae probably in ponds, lakes or reservoirs].
395. *Sayomyia antunesi* (Lane, 1939) [= *braziliensis*]. Type: Holotype male (1150), Juquia (Sao Paulo), Jan 1939, J. Lane (FH,1027). Bionomics: [As for 394. *braziliensis*].
396. *Sayomyia souzai* (Lane, 1939). Type: Holotype male (1083) with genitalia slide (221), Santarem (Para), June 1931, R.C. Shannon (FH). Bionomics: [Larvae



in shallow forest ground pools].

397. *Edwardsops brevisector* (Edwards, 1931). Type: Holotype female, "on board S.S. Jerome", Manaus (Amazonas), 24-27 April 1901 (BM). Bionomics: [Larvae probably in permanent or semipermanent ground waters].

398. *Edwardsops magnificus* (Lane, 1942). Type: Holotype female (3223), Salobra (Mato Grosso), 31 Jan 1941, F. Lane (FH). Bionomics: [Larvae probably in permanent or semipermanent ground waters].

\*399. *Edwardsops unicolor* (Lane, 1942). Type: Holotype male (1216) with genitalia mount, Salobra, bank of Rio Miranda (Mato Grosso), July 1939 (FH, 3203). Bionomics: [Larvae probably in permanent or semipermanent ground waters].

400. *Dixella chapadensis* (Lane, 1939). Type: Holotype male (845) with genitalia on slide with another specimen, Portinha, Chapada region (Mato Grosso), 27 Aug, J. Lane (FH). Bionomics: [Larvae probably in permanent or semipermanent ground waters].

401. *Dixella limai* (Santos, 1940). Type: Adult(s), larvae, pupae, Uberaba (Minas Gerais) (Univ. Minas Gerais). Bionomics: Larvae in small streams.

402. *Dixella paulistana* (Lane, Forattini & Rabello, 1955). Type: Holotype male (8094) with larval and pupal skins on slide, Campo Experimental da Agua Funda, Sao Paulo (Sao Paulo), 5 Nov 1954, E.X. Rabello (FH). Bionomics: Larvae in a rather shallow, sunlit pond with turbid water; in muddy margins with sparse emergent vegetation.

403. *Dixella torrentia* (Lane, 1939). Type: Holotype male (847), genitalia intact, Salto do Poco Grande, Juquia (Sao Paulo), 13 Dec 1938, J. Lane (FH). Bionomics: [Larvae probably in stream margins].

404. *Dixella wygodzinskyi* (Lane, 1945). Type: LECTOTYPE by present designation, female (5653), marked as holotype by Lane but not so indicated in original publication, Vila Capivari, Campos do Jordao (Sao Paulo), elev. 1700 m, Apr 1935, P. Wygodzinsky (FH). Bionomics: Larvae in epiphytic bromeliads in *Araucaria* forest.

## AUTHORS

Amaral, A.D. Franco. See Galvao for the 2 species described by Galvao and Amaral.

Antunes, P.C.A. The only Brazilian species described by Antunes were: 2 as senior author with Lane, 243. *Aedes* (*O.*) *pennai* and 364. *Culex* (*Car.*) *soperi*, whose types are in FH; 1 with Lane as senior author, 200. *Coquillettidia* (*R.*) *shannoni*, whose holotype is also in FH; and 1 with Cerqueira as senior author, 261. *Haemagogus* (*L.*) *tropicalis*, whose location is unknown (LU).

Barretto (also Barreto), M. Pereira. Of the 3 species described by Barretto with Coutinho as junior author, all with designated holotypes, we have found only 205. *Mansonia* (*M.*) *peessoai*, whose holotype is in FH (see section on depositories). The location of the holotypes of the other 2 species: 202. *Mansonia* (*M.*) *cerqueirai* and 208. *Mansonia* (*M.*) *wilsoni*, is unknown (LU).

See also Duret for 3 species described by Duret and Barretto, and Galvao for 1 species described by Ayroza Galvao and Barretto.

Berlin, Olavil George William. The holotype of the only Brazilian species described by Berlin is in USNM: 257. *Aedes* (*H.*) *aureolineatus*.



**Bonne-Wepster, Jean and Cornelis Bonne.** The holotype of 158. *Phoniomyia tripartita*, the only Brazilian species described by these authors, is non-existent (NE). It is represented by fig. 2 in Dyar (1919); see Belkin, 1968:24.

**Bourroul, Celestino.** The type material of the only species described by Bourroul is non-existent (NE): 77. *Toxorhynchites (L) mariae*. See Belkin (1968:51) for other names attributed to Bourroul in the past.

**Carpenter, Stanley J.** See Galindo for the 1 species from Brazil described by Galindo, Carpenter and Trapido.

**Casal, Osvaldo H.** The holotype of 355. *Culex (Aed.) clastrieri* described by Casal with Garcia as junior author is in the private collection of Casal and will presumably be eventually deposited in BA.

**Castro, Gustavo M. de Oliveira.** We have designated a lectotype, in IOC, for 1 of the 2 species described by Castro: 269. *Culex (C.) carcinoxenus*. The location of the holotype of 162. *Limatus flavisetosus* is unknown (LU), we did not find it in IOC where it was supposedly deposited.

**Causey, Ottis R.** The holotype of the 1 Brazilian species described by Causey as sole author is in USNM: 57. *Anopheles (N.) dunhami*. Of the 2 species described by Causey, Deane and Deane, we have designated a lectotype, in FMP, for: 48. *Anopheles (N.) galvaoui*. No material of the other species, based on eggs, 5. *Chagasia rozeboomi*, has been located and it is safe to consider that its type is non-existent (NE). We have restricted the type locality of this species to the vicinity of Sao Benedito, the locality in the state of Ceara where other Causey material was collected. The fourth species: 38. *Anopheles (N.) sawyeri*, was described by Causey with Deane, Deane and Sampaio as junior authors; its holotype is in USNM.

**Cerqueira, Nelson L.** The holotypes of all 8 Brazilian species described by Cerqueira as sole author are in existence: 1 in IOC, 230. *Psorophora (J.) forceps*; and 7 in FH: 173. *Sabethes (S.) forattinii*; 174. *Sabethes (S.) lanei*; 179. *Sabethes (S.) shannoni*; 180. *Sabethes (S.) spixi*, 183. *Sabethes (Sabethoides) tridentatus*; 227. *Psorophora (J.) amazonica*; 262. *Haemagogus (S.) baresi*.

The location of the holotype of 261. *Haemagogus (L.) tropicalis*, described by Cerqueira with Antunes as junior author, is unknown (LU); it was not found in IOC or FH.

The location of the holotypes of 236. *Aedes (O.) aenigmaticus* and 244. *Aedes (O.) perventor*, described by Cerqueira with Costa as junior author, is unknown (LU); they were not found in IOC or FH.

The holotype of 361. *Culex (Car.) anduzei*, described by Cerqueira with Lane as junior author, is in FH.

The location of the holotype of 242. *Aedes (O.) lepidus*, described by Cerqueira and Paraense, is unknown (LU); it was not found in IOC or FH.

Cerqueira was also the junior author of 1 species with Correa (see), 4 species with Del Ponte (see), 34 species with Lane (see) and 1 species with Shannon (see).

Cerqueira's list of Amazonian species (1961) is the most useful source of information on the bionomics and distribution of Brazilian mosquitoes.

**Chagas, Carlos.** We have designated lectotypes for 2 of the 4 species described by Chagas, both in IOC: 39. *Anopheles (N.) braziliensis* (type locality restricted to vicinity of Lassance on the basis of the statement in Root, 1926:704); 196. *Coquillettidia (R.) juxtamansonia*. Type material of 61. *Anopheles (N.) parvus* may



also be in IOC but since the only specimen remaining in the collection bears no data we hesitate to designate it as lectotype; the type locality is stated to be Oliveira (Minas Gerais) by Galvao, 1941:537 and is one of the localities mentioned for this species by Peryassu (1908:60). We have not been able to locate (LU) any original material of 53. *Anopheles (N.) nigratarsis* whose type locality we have determined to be Oliveira also on the basis of the citation of this locality in Peryassu (1908:60).

**Christophers, S. Rickard.** The holotype of the only Brazilian species described by Christophers, 16. *Anopheles (A.) amazonicus*, is in BM. We have restricted its original indefinite type locality (River Amazon) to Manaus.

**Correa, Renato R.** Correa is the sole author of only 2 nominal species: the type material of 10. *Anopheles (A.) geometricus* is non-existent (NE); the holotype of 67. *Anopheles (K.) montemor*, originally in SPM, is now in FH.

The holotype of the 1 species described by Correa and Cerqueira, 68. *Anopheles (K.) laneanus*, is in FH.

The holotypes of all 5 species described by Correa and Ramalho are in FH: 8. *Anopheles (A.) anchietai*; 148. *Phoniomyia galvaoi*; 151. *Phoniomyia lopesi*; 271. *Culex (C.) deanei*; 274. *Culex (C.) forattinii*.

The holotype of 32. *Anopheles (N.) imperfectus*, described by Correa and Ramos and originally in SPM, is now in FH.

Correa was also the junior author with Galvao and Lane of 42. *Anopheles (N.) paulistensis*. The location of the type material of this species is not known (LU).

**Costa, Almir F.** For the 2 species described by Costa with Cerqueira as senior author, see under the latter.

**Coutinho, Jose Oliveira.** The holotype of 344. *Culex (Micr.) lanei* described by Coutinho and Forattini is in FH. Coutinho also proposed the replacement name *costalimai* for 19. *Anopheles (A.) limai* (FH).

See also Barretto for 3 species described by Barretto and Coutinho, and Lane for 2 species described by Lane and Coutinho.

**Cruz, Oswaldo Goncalves.** We have designated a lectotype for only 1 of the 4 species described by Oswaldo Cruz (in IOC): 225. *Psorophora (P.) genumaculata*. Authentic original material of 50. *Anopheles (N.) lutzii* is in the IOC collection but it requires careful study before designation of a lectotype. Also in IOC is a slide with 2 wings labelled *Manguinhosia lutzii*; this may be the only remaining original material of 22. *Anopheles (A.) lutzii* but this also requires study. The location of the type material of 2. *Chagasia neivae* remains unknown (LU), it was not found in IOC where it should be but Belkin's search was not exhaustive. The localities of the species described by Oswaldo Cruz are given in Peryassu (1908).

**Damasceno, Reinaldo G.** See Duret for 2 species described by Duret and Damasceno, and Galvao for 3 species described by Galvao and Damasceno.

**Davis, Nelson C.** The holotype of the only Brazilian species described by Davis as sole author is in USNM: 27. *Anopheles (A.) shannoni*. See also Serafim for 1 species described by Serafim with Davis as junior author.

**Deane, Leonidas M. and M.P. Deane.** See Causey.

**Del Ponte, Eduardo.** In the world catalog (Stone, Knight and Starcke, 1959:87), 2 Brazilian species, 136. *Wyeomyia (D.) rooti* and 139. *Wyeomyia (D.) subcomplosa*, are credited to Del Ponte (1939) as sole author in a table (Del Ponte, 1939:



541) listing coded character states of females without mention of type specimens. Stone, Knight and Starcke (loc. cit.) indicate the state of Goias as the type locality of these nominal species, apparently on the basis of the initial sentence in Del Ponte's paper (1939:535), which however merely states that the preparation of Del Ponte's work was initiated at the time of his study of the mosquitoes of Goias.

There are a number of unfortunate errors in Del Ponte's paper (1939), among them: (1) a reference to a prior non-existent description of *rooti* (p. 536) by Del Ponte and Cerqueira (1938), (2) no reference to *undulata* described by these authors, and (3) a discrepancy in 2 important character states attributed to *kerri* in the table with those appearing in the original description of Del Ponte and Cerqueira (1938:228,229). Fortunately these errors do not affect the availability of *rooti* Del Ponte, 1939. There is no doubt that type material of *rooti* Del Ponte, 1939 was in the hands of Lane and Cerqueira (1942:690) when they described *delpontei* in the belief that the former name had not been proposed (Lane and Cerqueira, 1957). In IOC there is a notation by Costa Lima that the type of *rooti* was loaned to the Rockefeller Foundation, which supported in part the studies of Lane and Cerqueira (1942:473). In spite of Lane and Cerqueira's statement (1957) that they did not describe *delpontei* until material additional to the *rooti* of Del Ponte came to hand, we believe that the specimen which they designated as the holotype of *delpontei* was one of the original specimens of *rooti*. The date and locality of capture of this specimen agree with others mentioned by Del Ponte and Cerqueira (1938) and it was probably collected by Gastao Cesar. Since Del Ponte (1939) did not designate a holotype, we have designated here as lectotype of 136. *Wyeomyia* (D.) *rooti*, Del Ponte, 1939 the same specimen as the holotype of 137. *Wyeomyia* (D.) *delpontei* Lane & Cerqueira, 1942 (IOC). The latter nominal species was synonymized by Lane and Cerqueira (1957) with *rooti* Del Ponte, 1939 when they were informed by Alan Stone of the validity of Del Ponte's description. At the same time Lane and Cerqueira (1957) proposed the name *alani* to replace the preoccupied specific name of *Wyeomyia* (A.) *rooti* described by them in 1942.

The character states given by Del Ponte for 139. *Wyeomyia* (D.) *subcomplosa* are identical to those indicated for *complosa*. We believe that Del Ponte intended to propose *subcomplosa* for the Brazilian species identified earlier as *complosa* Dyar, 1928 by Del Ponte and Cerqueira (1938:234-235). The latter authors pointed out some differences in the male genitalia of their *complosa* from the description and figure by Dyar (1928:74, fig. 45). Therefore, we consider that all the females listed under *complosa* by Del Ponte and Cerqueira are syntypes of *subcomplosa*. Unfortunately the male of *complosa* of Del Ponte and Cerqueira, with the distinctive genitalia, cannot be included in the type series of *subcomplosa* as this sex is not mentioned in Del Ponte (1939). The location of the female syntypes of *subcomplosa* is unknown (LU) at present but it is very likely that some of these specimens will be found in FH, IOC or USNM. To our knowledge, *subcomplosa* has not been described or recognized as a distinct species since the original mention of the name by Del Ponte (1939). Its taxonomic identity remains uncertain.

The holotypes of 3 of the 4 species described by Del Ponte with Cerqueira as junior author are in IOC: 124. *Wyeomyia* (D.) *cesari*; 128. *Wyeomyia* (D.) *kerri*; 141. *Wyeomyia* (D.) *undulata*. We did not find the holotype of 135. *Wyeomyia* (D.) *brucei*; in IOC there is only the "allotype" designated by Lane and Cerqueira (1942:599); its location is considered unknown (LU) for the present but it may be lost.

**Duret, Jose Pedro.** The holotypes of all 15 Brazilian species described up to 1970 by Duret as sole author are all in the Duret private collection: 278. *Culex* (C.) *para-*



*maxi*; 286. *Culex* (Mel.) *bahiensis*; 292. *Culex* (Mel.) *contei*; 293. *Culex* (Mel.) *cris-tovai*; 297. *Culex* (Mel.) *ernanii*; 300. *Culex* (Mel.) *faurani*; 301. *Culex* (Mel.) *flochi*; 306. *Culex* (Mel.) *isabelae*; 307. *Culex* (Mel.) *johnnyi*; 308. *Culex* (Mel.) *kerri*; 319. *Culex* (Mel.) *rachoui*; 321. *Culex* (Mel.) *silvai*; 327. *Culex* (Mochl.) *galvaei*; 329. *Culex* (Mochl.) *palaciosi*; 358. *Culex* (Anoed.) *damascenoi*.

The holotypes of all 3 species described by Duret with Barretto as junior author are in FMRP: 285. *Culex* (Mel.) *aureonotatus*; 289. *Culex* (Mel.) *bifoliolatus*; 325. *Culex* (Mel.) *trilobulatus*.

The holotypes of the 2 species described by Duret with Damasceno as junior author are in the Duret private collection: 290. *Culex* (Mel.) *mojuensis*; 356. *Culex* (Anoed.) *belemensis*.

**Dyar, Harrison G.** The holotypes or lectotypes of all 5 species described from Brazil by Dyar as sole author are in USNM: 102. *Trichoprosopon* (R.) *trichopus*; 132. *Wyeomyia* (D.) *mystes*; 197. *Coquillettia* (R.) *hypocindyna*; 264. *Culex* (L.) *brasiliae*; 303. *Culex* (Mel.) *inadmirabilis*. Dyar also proposed the replacement names *remipusculus* for 177. *Sabethes* (S.) *purpureus* Peryassu, 1908 (IOC) and *melano-nympe* for 188. *Sabethes* (*Sabethinus*) *albiprivatus* (BM).

The location of the holotype of the 1 Brazilian species described by Dyar with Knab as junior author is unknown (LU): 84. *Toxorhynchites* (L.) *ambiguus*. This species was never seen by the authors and was based on a single specimen mentioned by Wiedemann (see Belkin, 1968:32). This specimen may possibly be in NMW. Dyar and Knab also proposed the replacement names *peryassui* for 22. *Anopheles* (A.) *lutzi* (?IOC), *cruzii* for 66. *Anopheles* (K.) *lutzi* Theobald, 1901 (BM), and *wiedemanni* for 81. *Toxorhynchites* (L.) *ferox* (Wiedemann, 1828) (SNG and NMW).

The holotypes of all 4 Brazilian species described by Dyar with Shannon as junior author are in USNM: 24. *Anopheles* (A.) *celidopus*; 182. *Sabethes* (*Sabethoides*) *glaucodaemon*; 204. *Mansonia* (M.) *indubitans*; 288. *Culex* (Mel.) *bequaerti*. Dyar and Shannon also proposed the replacement name *leucocelaenus* for 253. *Aedes* (F.) *leucomelas* (BM).

**Edwards, Frederick W.** The 2 holotypes and 1 lectotype of the only 3 Brazilian species described by Edwards are in BM: 166. *Sabethes* (S.) *longfieldae*; 169. *Sabethes* (S.) *argyronotum*; 397. *Edwardsops* *brevisector*.

**Evans, Alwen M.** The holotypes or lectotypes of all 7 Brazilian species described by Miss Evans as sole author are in BM: 283. *Culex* (Mel.) *gordoni*; 287. *Culex* (Mel.) *innominatus* (type locality here restricted); 296. *Culex* (Mel.) *manaosensis*; 311. *Culex* (Mel.) *clarki* (type locality here restricted); 324. *Culex* (Mel.) *thomasi*; 328. *Culex* (Mochl.) *innovator* (type locality here restricted); 353. *Culex* (Aed.) *hildebrandi* (type locality here restricted). The restricted type locality for 3 of the species noted above is Itacoatiara when the original description or labels indicated River Amazon to or from Manaus. For the fourth species, *clarki*, which was stated to be collected on the River Amazon, the restriction is to Manaus.

See also Gordon for 6 species described by Gordon and Evans.

**Ferreira, Orlando.** See Lima for the 1 species described by Lima, Guitton and Ferreira.

**Fonseca, Flavio da.** The holotypes of the 2 nominal species described by Fonseca and Ramos are in FH: 19. *Anopheles* (A.) *limai*; 20. *Anopheles* (A.) *costai*.

**Forattini, Oswaldo Paulo.** The holotype of the 1 Brazilian species credited to



Forattini as sole author is in USNM: 277. *Culex (C.) oswaldoi*. The holotypes of the 2 Brazilian species described by Forattini as senior author are in FH: 268. *Culex (C.) brami* Forattini, Rabello & Lopes; 349. *Culex (Micr.) shopei* Forattini & Toda.

See also **Coutinho** for 1 species described by Coutinho and Forattini; and **Lane** for 1 species described by Lane and Forattini and 1 species described by Lane, Forattini and Rabello.

**Gabaldon, Arnaldo**. See **Rozeboom** for 1 Brazilian species described by Rozeboom and Gabaldon.

**Galindo, Pedro**. The holotype of 254. *Aedes (F.) leucophoebus*, the only Brazilian species described by Galindo, with **Carpenter** and **Trapido** as junior authors, is in FH.

**Galvao, A.L. Ayroza**. Type material of 2 of the 3 species described by Ayroza Galvao as sole author have been located in FH: the holotype of 9. *Anopheles (A.) bustamentei* and the lectotype, here designated, of 26. *Anopheles (A.) rachoui*. The location of the type material of 65. *Anopheles (N.) chagasi* is unknown (LU); the type locality is here restricted to Manaus, 1 of 3 localities mentioned in the original description.

The holotypes of the 2 species described by Ayroza Galvao and Amaral are in FMSP (see section on depositories): 34. *Anopheles (N.) antunesi* and 49. *Anopheles (N.) lanei*.

The holotype of 70. *Anopheles (L.) pseudotibiamaculatus* described by Ayroza Galvao and Barretto is also in FMSP (see section on depositories).

Syntypes of the 3 species described by Ayroza Galvao and Damasceno were probably originally in FMSP as stated for 60. *Anopheles (N.) konderi*. However, Belkin could not locate any original material of this species which is recorded in this collection and it is probably lost. There is some material in this collection of 31. *Anopheles (N.) marajoara* that could probably be designated as the lectotype. The type locality of this species is here restricted to the vicinity of Cachoeira do Arari, the site of collection of the following species. No material or record of the third species, 33. *Anopheles (N.) domesticus*, was located in FMSP; for the present the location of its type material is unknown (LU).

Of the 4 species described by Ayroza Galvao and Lane, the holotype of 40. *Anopheles (N.) pessoai* was found in FMSP. The only type material of 54. *Anopheles (N.) noroestensis* found by Belkin was in FH and possibly FMSP; the lectotype here designated is represented by the male genitalia slide in FH. The type locality of this species is Lussanvira (Galvao and Lane, 1938:176,177) and not Tiete as stated by Stone, Knight and Starcke (1959:33). No type material of 30. *Anopheles (N.) limai* was found, only slides of stomachs in FMSP; it is considered non-existent (NE). We have designated a lectotype (USNM) for 59. *Anopheles (N.) metcalfi*, which was based on *tarsimaculatus* of Root (1926).

No material of 42. *Anopheles (N.) paulistensis* described by Ayroza Galvao, Lane and Correa, was found by Belkin; the location of the type material remains unknown (LU).

See **Pessoa** for 1 species described by Pessoa and Galvao.

**Garcia, Miguel**. See **Casal**.

**Giles, George M**. The holotype of the only species described from Brazil by Giles is in BM: 229. *Psorophora (J.) arribalzagae*.



Gordon, Rupert M. The holotypes or lectotypes of all 6 species described from Brazil by Gordon with Evans as junior author are in BM: 76. *Toxorhynchites* (L.) *horei*; 133. *Wyeomyia* (D.) *negrensis*; 165. *Sabethes* (S.) *amazonicus*; 209. *Uranotaenia albitarsis*; 249. *Aedes* (F.) *braziliensis*; 360. *Culex* (Anoed.) *originator*.

Guimaraes, Lindolpho da Rocha. See Lane for the 1 species described by Lane and Guimaraes.

Guitton, Neide. See Lima for the 1 species described by Lima, Guitton and Ferreira.

Knab, Frederick. See Dyar.

Kollar, Vincenz. The type material of 367. *Culex molestus*, a *nomen dubium*, is non-existent (NE).

Komp, William H.W. The holotype of 35. *Anopheles* (N.) *emilianus*, the only species described by Komp from Brazil, is in USNM.

Kumm, Henry W. The location of the type material is unknown (LU) for the only species described from Brazil by Kumm: 335. *Culex* (Micr.) *davisi*.

Lane, John. Holotypes (in 1 case the lectotype) of 41 of the 43 species described from Brazil by Lane as sole author have been located. In USNM is the holotype of 385. *Lutzomiops amazonicus* and in BM the holotypes of 375. *Corethrella kummi* (type locality restricted) and 380. *Corethrella tarsata*. The FH contains the types of 38 species: 96. *Trichoprosopon* (R.) *luederwaldti*; 108. *Wyeomyia* (W.) *downsi*; 210. *Uranotaenia davisi*; 212. *Uranotaenia burkii*; 214. *Uranotaenia mathesoni*; 265. *Culex* (C.) *abnormalis*; 267. *Culex* (C.) *airozai*; 273. *Culex* (C.) *foliaceus*; 276. *Culex* (C.) *mauesensis*; 368. *Corethrella confusa*; 369. *Corethrella bromelicola*; 370. *Corethrella cardosoi*; 371. *Corethrella edwardsi* (type locality restricted); 372. *Corethrella flavitibia*; 373. *Corethrella fulva*; 374. *Corethrella infuscata*; 376. *Corethrella lopesi*; 377. *Corethrella pillosa*; 378. *Corethrella selvicola*; 379. *Corethrella striata*; 381. *Corethrella travassosi*; 382. *Corethrella vittata*; 383. *Corethrella whitmani* (type locality restricted); 384. *Lutzomiops alticola*; 386. *Lutzomiops barretto*; 387. *Lutzomiops coutinhoi*; 388. *Lutzomiops niger*; 389. *Lutzomiops iridescens*; 390. *Lutzomiops juquianus*; 391. *Lutzomiops lutzi*; 393. *Lutzomiops nigrescens*; 395. *Lutzomiops antunesi*; 396. *Sayomyia souzai*; 398. *Edwardsops magnificus*; 399. *Edwardsops unicolor*; 400. *Dixella chapadensis*; 403. *Dixella torrentia*; 404. *Dixella wygodzinskyi* (lectotype). The location of the type material (holotypes not designated) of the following 2 species is unknown (LU), we did not find any material in FH or IOC: 109. *Wyeomyia* (W.) *leucotarsis* and 119. *Wyeomyia* (C.) *mattinglyi* (type locality restricted).

The holotype of the 1 species described by Lane with Antunes as junior author is in FH: 200. *Coquillettia* (R.) *shannoni*.

The holotypes (in 2 cases lectotypes) of all 34 species described by Lane with Cerqueira as junior author have been located. We have designated a lectotype (USNM) for 146. *Phoniomyia edwardsi*. In FH are the types of 117. *Wyeomyia* (C.) *dyari* (lectotype) and 392. *Lutzomiops manaosensis*. Holotypes of 31 species are in IOC: 90. *Trichoprosopon* (T.) *obscurum*; 92. *Trichoprosopon* (T.) *soaresi*; 97. *Trichoprosopon* (C.) *walcotti*; 98. *Trichoprosopon* (R.) *castroi*; 100. *Trichoprosopon* (R.) *edwardsianum*; 101. *Trichoprosopon* (R.) *humboldti*; 104. *Trichoprosopon* (R.) *reversum*; 105. *Trichoprosopon* (R.) *simile*; 106. *Trichoprosopon* (R.) *theobaldi*; 110. *Wyeomyia* (W.) *limai*; 115. *Wyeomyia* (W.) *sabetea*; 118.



*Wyeomyia* (C.) *kummi*; 121. *Wyeomyia* (A.) *rooti* (*alani*, new name); 122. *Wyeomyia* (D.) *airosai*; 126. *Wyeomyia* (D.) *finlayi*; 127. *Wyeomyia* (D.) *howardi*; 129. *Wyeomyia* (D.) *knabi*; 137. *Wyeomyia* (D.) *delpontei*; 138. *Wyeomyia* (D.) *shannoni*; 140. *Wyeomyia* (D.) *tarsata*; 143. *Phoniomyia bonnei*; 144. *Phoniomyia davisii*; 147. *Phoniomyia flabellata*; 153. *Phoniomyia palmata*; 156. *Phoniomyia neivai*; 157. *Phoniomyia theobaldi*; 167. *Sabethes* (S.) *batesi*; 185. *Sabethes* (*Sabethinus*) *fabricii*; 186. *Sabethes* (*Sabethinus*) *lutzianus*; 189. *Sabethes* (*Sabethinus*) *soperi*; 190. *Sabethes* (*Sabethinus*) *whitmani*. There is some confusion regarding the holotypes of 143. *Phoniomyia bonnei*; 144. *Phoniomyia davisii*; 156. *Phoniomyia neivai* and 157. *Phoniomyia theobaldi*. There are specimens of all 4 species labelled as holotypes in both IOC and FH. We consider that in all cases the true holotypes are in IOC and that the specimens in FH were so marked by Lane before he undertook his joint work with Cerqueira and inadvertently the type labels were not removed later.

The holotypes of the 2 species described by Lane with Coutinho as junior author are in FH: 195. *Coquillettidia* (R.) *hermanoi*; 199. *Coquillettidia* (R.) *neivai*.

The holotypes of 145. *Phoniomyia diabolica*, described with Forattini as junior author, and 402. *Dixella paulistana*, described with Forattini and Rabello as joint authors, are in FH.

Syntypes of 142. *Phoniomyia antunesi*, described by Lane with Guimaraes as junior author, are in FH. We have not designated a lectotype for this species since the type material requires careful study.

The holotype of 280. *Culex* (C.) *renatoi*, described by Lane with Ramalho as junior author, is in FH.

We did not locate the holotypes of the 11 species described by Lane with Whitman (LU). They were presumably originally in the Rockefeller Foundation Laboratory at IOC: 313. *Culex* (Mel) *nigrimacula*; 332. *Culex* (Micr.) *aureus*; 333. *Culex* (Micr.) *carioca*; 336. *Culex* (Micr.) *dubitans*; 341. *Culex* (Micr.) *retrosus*; 342. *Culex* (Micr.) *fuscatus*; 343. *Culex* (Micr.) *intermedius*; 348. *Culex* (Micr.) *reducens*; 357. *Culex* (Anoed.) *canaanensis*; 362. *Culex* (Car.) *antunesi*; 365. *Culex* (Car.) *wilsoni*.

In addition to the description of the above 95 species, Lane participated as junior author in the description of 8 species: 2 species with Antunes: 243. *Aedes* (O.) *pennai* and 364. *Culex* (Car.) *soperi*, whose holotypes are FH; 1 species with Cerqueira: 361. *Culex* (Car.) *anduzei* (FH); 4 species with Ayroza Galvao: 30. *Anopheles* (N.) *limai*; 40. *Anopheles* (N.) *pessoai*; 54. *Anopheles* (N.) *noroestensis* and 59. *Anopheles* (N.) *metcalfi*, for the type material of these species see Galvao; and 1 species, 42. *Anopheles* (N.) *paulistensis*, with Ayroza Galvao and Correa, the location of whose type is unknown (see Galvao).

Laveran, Charles-Louis Alphonse. Type material of 160. *Limatus curvirostris*, the only species described from Brazil by Laveran, is non-existent (NE).

Lima, Angelo da Costa. Type material of all but 1 of the 10 Brazilian nominal species described by Costa Lima as sole author are in the IOC collection. The following 6 species are represented by holotypes or lectotypes: 11. *Anopheles* (A.) *evandroi*; 93. *Trichoprosopon* (L.) *brevipes*; 114. *Wyeomyia* (W.) *pintoi*; 203. *Mansonia* (M.) *chagasi*; 220. *Orthopodomyia townsendi*; 221. *Orthopodomyia sampaioi*. The following 3 species are represented by syntypes that need careful study before designating lectotypes: 21. *Anopheles* (A.) *minor*; 78. *Toxorhynchites* (L.) *pusillus*; 111. *Wyeomyia* (W.) *lutzi*. Belkin did not find any type material of 245. *Aedes* (O.) *rhyacophilus* in IOC where it was deposited; its location is considered unknown



(LU) for the present as it may have been borrowed. We have restricted the type locality of this species to the vicinity of Sao Joao de Petropolis, one of the cities in the valley of Canaa mentioned in the original description.

Costa Lima was the senior author with Guitton and Ferreira of 1 species, 71. *Toxorhynchites (A.) catharinensis*, whose holotype is in IOC.

Judging by the notation on the record cards, Costa Lima was responsible for the reorganization of the mosquito collection at the Instituto Oswaldo Cruz. The specimens were apparently transferred from small insect boxes into individual tubes. The majority of them are without labels on the pins and with fragmentary data only on the tubes or with brief notation on the record cards. The transfer was not completed, the remainder of the specimens are in 10 small boxes in 2 drawers (see Lutz).

Lopes, Oscar de Souza. See Forattini for the 1 species described by Forattini, Rabello and Lopes.

Lutz, Adolpho. After examining Lutz material in European museums, Belkin (1968:48-51) discussed the involved problem of the determination of the type specimens of the nominal species described by this author. In July and August 1969 Belkin found that the only remaining authentic type material of Lutz in Brazil was in the Instituto Oswaldo Cruz in Rio de Janeiro. This material is in general in poor condition and often without labels on the pins. Part of it was apparently studied by A. da Costa Lima and incorporated by him into the general collection of the institute, usually with only the notation that the specimens were from the old collection of the institute; the majority of these specimens have no labels at all on the pins. The remainder of the Lutz material, apparently not previously studied, is stored separately in 15 small insect boxes, 1-9 in one drawer and 10-15 in another. These specimens are all numbered (2550-2664) but not all numbers in this series are present and it is evident that some specimens were removed from these boxes, probably by Costa Lima. No record cards could be located in the institute for the numbers on the specimens remaining in the small boxes. A typed species label precedes the series of specimens of each species. Some specimens bear labels with locality and data, others lack labels. The data on the labels of only a few specimens indicate that they were undoubtedly part of the original type series of some of Lutz's species.

Since Lutz did not designate holotypes for any of his species described from more than 1 specimen and since apparently all the remaining type material has now been located in the BM, IOC or USNM collections, we have designated here lectotypes for all his species except as noted below. These lectotypes have been designated with due regard to the original data, agreement with original description as well as the current interpretation of the involved species.

Lutz was the sole author of 33 nominal species. Type material of the following is in existence. In the BM collection, 13 species: 79. *Toxorhynchites (L.) solstitialis*; 91. *Trichoprosopon (T.) pallidiventer*; 112. *Wyeomyia (W.) medioalbipes*; 113. *Wyeomyia (W.) oblita* (syntype; also IOC); 134. *Wyeomyia (D.) personata*; 164. *Sabethes (S.) albiprivatus*; 184. *Sabethes (Sabethinus) aurescens*; 187. *Sabethes (Sabethinus) intermedius*; 250. *Aedes (Finlaya) fluviatilis*; 253. *Aedes (F.) leucomelas*; 256. *Aedes (F.) oswaldi*; 281. *Culex (C.) spinosus*; 322. *Culex (Mel.) theobaldi*. In the USNM collection, the lectotype of 346. *Culex (Micr.) neglectus*. In the IOC collection, 3 species: 107. *Wyeomyia (W.) arthro stigma*; 116. *Wyeomyia (W.) serrata*; 218. *Orthopodomyia albicosta*. The following 6 species are apparently repre-



sented by type material in IOC but lectotype designations have not been made either because of fragmentary data or because of the need of careful study of the specimens: 6. *Anopheles (S.) lineatus*; 86. *Trichoprosopon (T.) compressum*; 95. *Trichoprosopon (S.) longipalpis*; 113. *Wyeomyia (W.) oblita* (also BM); 299. *Culex (Mel.) fasciolatus*; 309. *Culex (Mel.) lugens*. The neotype of 363. *Culex (Car.) iridescens* is in FH. The types of the following 3 species, stated to be in IOC by Lane (1953) and Stone, Knight and Starcke (1959) were not found in this collection in 1969: 1. *Chagasia fajardi*; 263. *Haemagogus (S.) capricornii*; 352. *Culex (Aed.) amazonensis*; their location is unknown (LU) at present. No type material of the following 7 species has been found by Belkin or other workers in the past anywhere and is considered non-existent (NE): 74. *Toxorhynchites (A.) neglectus*; 88. *Trichoprosopon (T.) splendens*; 120. *Wyeomyia (M.) leucostigma*; 123. *Wyeomyia (D.) bourrouli*; 125. *Wyeomyia (D.) confusa*; 258. *Aedes (H.) fulvithorax*; 330. *Culex (Micr.) albipes*.

Lutz also described 4 species with A. Neiva as junior author. Type material of all these species is apparently in IOC, the holotype of 15. *Anopheles (A.) mattogrossensis* and probably the syntypes of 75. *Toxorhynchites (L.) bambusicola*; 82. *Toxorhynchites (L.) posticatus* and 234. *Psorophora (G.) scutipunctata*. Lectotypes for the latter 3 species are not designated at this time because of the need of further study.

Several species described by Lutz, and by Theobald from Lutz material, did not have a locality specified in the original description and were reported from one or more states in Brazil. In those instances where labels on extant original material did not indicate a specific locality we have used the distribution data on Lutz material in Peryassu (1908:59-75) as an indication of the type locality. All records from Sao Paulo without a specific locality we have interpreted as being from the city of Sao Paulo or its vicinity.

Dr. Bertha Lutz, the daughter of Adolpho Lutz, has informed us that the Fazenda do Bonito, Serra da Bocaina, belonged to her father and uncle and that it was in the possession of the family before 1900. It is probably therefore that our interpretation of the place of capture of the lectotype of 256. *Aedes (F.) oswaldi* is correct.

**Macquart, P. Justin M.** All 3 species described by Macquart from Brazil, without locality specified, were probably based on material obtained by C. Gaudichaud from the "Uranie" world expedition. We are restricting the type locality of these species to the vicinity of Rio de Janeiro, the only area in Brazil visited by this expedition. The holotypes of 237. *Aedes (O.) albifasciatus* and 259. *Aedes (S.) toxorhynchus* are in MNHP; the type material of 223. *Psorophora (P.) pilipes* is non-existent (NE).

**Martini, Erich C.W.** The holotype of 4. *Chagasia stigmopteryx*, the only species described by Martini from Brazil and formerly believed to be non-existent, has been located in DEI through the courtesy of G. Morge.

**Matheson, Robert.** The holotype of 318. *Culex (Mel.) putumayensis*, the only Brazilian species described by Matheson, is in USNM. The type locality, stated to be the Amazon River near Peru, is here restricted to Santo Antonio do Ica (Amazonas), near the mouth of the Putumayo River (Rio Ica).

**Neiva, Arthur.** Belkin did not find the type material of the 2 species described by Neiva as sole author that was presumed to be in IOC: 28. *Anopheles (A.) tibiamaculatus* and 168. *Sabethes (S.) belisarioi*. However, Belkin's search was not exhaustive and for the present we consider that the location of these types is unknown (LU).

The types 2 of the 4 species described by Neiva and Pinto are in IOC: 62. *Ano-*



*pheles (N.) rondoni* and 64. *Anopheles (N.) cuyabensis*. We have designated lectotypes for both species and restricted the type locality of *rondoni*. We found no type material of 63. *Anopheles (N.) triannulatus* or 215. *Uranotaenia noctivaga* in IOC where it should be, but consider its location unknown (LU) pending exhaustive search in this collection.

Neiva was the junior author of 4 other species with Adolpho Lutz (see). He also proposed the new name *adolphoi* for 66. *Anopheles (K.) lutzii* Theobald, 1901 whose lectotype is in BM.

Neveu-Lemaire, Maurice. Type material is non-existent (NE) of the 2 nominal species described by Neveu-Lemaire from Brazil (as French Guiana): 248. *Aedes (O.) mathisi* and 354. *Culex americanus (nomen dubium)*.

Newstead, Robert. The lectotypes of 219. *Orthopodomyia longipalpis* and 323. *Culex (Mel.) chrysothorax*, described by Newstead and Thomas, are in BM.

Paraense, Wladimir Lobato. See Cerqueira for the 1 species described by Cerqueira and Paraense.

Peryassu, Antonio Goncalves. Apparently all the extant type material of the 16 nominal species described by Peryassu is in IOC or in the Museu Nacional in Quinta da Boa Vista in Rio de Janeiro. The material in the latter institution was discovered by Belkin in 1969. Careful study of the material in both institutions is needed before lectotype designations can be made since several Peryassu species were composite ones. Therefore we have designated lectotypes here only when the specimens agreed with the current interpretation of Peryassu species. At this time the definite types of only the following 4 nominal species are recognized, all in IOC: 177. *Sabethes (S.) purpureus*; 191. *Coquillettia (R.) albicosta*; 226. *Psorophora (J.) albigena*; 291. *Culex (Mel.) chrysothorax*. Apparently authentic original material of the following 6 nominal species is either in IOC or MusNac as indicated: 13. *Anopheles (A.) intermedius* (IOC); 25. *Anopheles (A.) pseudomaculipes* (IOC); 29. *Anopheles (N.) allopha* (MusNac); 58. *Anopheles (N.) oswaldoi* (MusNac); 85. *Toxorhynchites (L.) fluminensis* (IOC); 194. *Coquillettia (R.) chrysonotum* (IOC and MusNac). No authentic original material of following 6 nominal species was found in either institution but since an exhaustive search was not made it is possible that some is extant and therefore the location is recorded as unknown (LU) for the present: 3. *Chagasia maculata*; 18. *Anopheles (A.) rockefelleri*; 23. *Anopheles (A.) alagoanii*; 69. *Anopheles (L.) gilesi*; 178. *Sabethes (S.) quasicyaneus*; 216. *Uranotaenia argenteopennis*.

More or less specific localities were mentioned by Peryassu in the original descriptions. We have restricted the type locality of 69. *Anopheles (L.) gilesi* to the vicinity of Lassance, the area in the valley of the Rio das Velhas where C. Chagas collected anophelines in 1907 (Root, 1926:704). The type locality of 18. *Anopheles (A.) rockefelleri* was not specified; we have restricted it to the vicinity of the city of Rio de Janeiro, where Peryassu was working at the time of the description of this species.

Peryassu's major work on the Culicidae of Brazil (1908) is an important source of information on the species described from Brazil prior to its date of publication, particularly the section dealing with the distribution of the species (p. 59-75). Apparently all the material then in IOC (at that time, Instituto de Manguinhos) was examined and recorded by Peryassu, including the species described by Adolpho Lutz, Carlos Chagas, Oswaldo Cruz and Arthur Neiva.



Pessoa, Samuel Barnsley. The holotype of 350. *Culex (Micr.) worontzowi* described by Pessoa and Galvao is in FMSP.

Pinto, Cesar. See Neiva for the 4 species described by Neiva and Pinto.

Prado, Alcides. The holotypes of both species described by Prado are in IB: 192. *Coquillettidia (R.) albifera*; 211. *Uranotaenia ditaenionota*.

Rabello, Ernesto Xavier. See Forattini for 1 species described by Forattini, Rabello and Lopes; and Lane for 1 species described by Lane, Forattini and Rabello.

Ramalho, Gabriel R. See Lane for 1 species described by Lane and Ramalho, and Correa for 5 species described by Correa and Ramalho.

Ramos, Alberto da Silva. The location of the type material is unknown (LU) for the 1 species described by Ramos as sole author: 36. *Anopheles (N.) guarujaensis*.

See Correa for 1 species described by Correa and Ramos; and Fonseca for 2 species described by Fonseca and Ramos.

Robineau-Desvoidy, Andre Jean-Baptiste. All the original culicid material of Robineau-Desvoidy is non-existent (NE; see Belkin, 1968:52). The 4 species described from Brazil did not have a locality specified, we are restricting it to the vicinity of Rio de Janeiro (Guanabara) for all these: 37. *Anopheles (N.) argyritarsis*; 171. *Sabethes (S.) locuples*; 222. *Psorophora (P.) tibialis*; 366. *Culex pallipes*.

Rondani, Camillo. The location of the type material is unknown (LU) for the 2 species described by Rondani from Brazil, without specified locality. We have restricted the type locality for both species to the vicinity of Rio de Janeiro (Guanabara): 87. *Trichoprosopon (T.) digitatum*; 246. *Aedes (O.) scapularis*.

Root, Francis Metcalf. Holotypes or lectotypes of all 24 nominal species described by Root from Brazil are in USNM: 12. *Anopheles (A.) fluminensis*; 41. *Anopheles (N.) darlingi*; 43. *Anopheles (N.) strodei*; 131. *Wyeomyia (D.) melanoides*; 149. *Phoniomyia incaudata*; 154. *Phoniomyia pilicauda*; 266. *Culex (C.) acharistus*; 275. *Culex (C.) lygrus*; 284. *Culex (Mel.) andricus*; 294. *Culex (Mel.) exedruss*; 295. *Culex (Mel.) dyius*; 298. *Culex (Mel.) evansae*; 305. *Culex (Mel.) census*; 315. *Culex (Mel.) automartus*; 316. *Culex (Mel.) oedipus*; 317. *Culex (Mel.) plectoporpe*; 320. *Culex (Mel.) serratimarge*; 326. *Culex (Mochl.) megapus*; 331. *Culex (Micr.) aphy-lactus*; 334. *Culex (Micr.) trychnus*; 337. *Culex (Micr.) gairus*; 338. *Culex (Micr.) hedys*; 345. *Culex (Micr.) microphyllus*; 351. *Culex (Aed.) accelerans*.

All these species are based on material collected in the vicinity of the city Rio de Janeiro and in the states of Rio de Janeiro and Minas Gerais from April to June 1925, primarily by Root himself.

Rozeboom, Lloyd E. The holotype of the 1 species described from Brazil by Rozeboom, with Gabaldon as junior author, is in USNM: 56. *Anopheles (N.) goeldii*.

Sampaio, M.M. See Causey.

Santos, O.B. dos. The type material of 401. *Dixella limai*, stated to be in Univ. Minas Gerais was not examined by us.

Serafim, Jose Jr. The holotype of 241. *Aedes (O.) jacobinae*, described by Serafim and Davis, is in USNM.

Shannon, Raymond C. The holotypes of all 3 Brazilian species described by Shannon as sole author are in USNM: 7. *Anopheles (S.) lewisi (thomasi, new name)*.



52. *Anopheles (N.) guarani*; 198. *Coquillettidia (R.) lynchi*.

The holotype of 231. *Psorophora (J.) lanei*, described by Shannon and Cerqueira, was not found in IOC and its location is unknown (LU).

See Dyar for 4 species described by Dyar and Shannon.

Stone, Alan. The holotypes of the 2 Brazilian species described by Stone are in USNM: 89. *Trichoprosopon (T.) townsendi*; 99. *Trichoprosopon (R.) cerqueirai*.

Theobald, Frederick V. Holotypes or lectotypes of 42 of the 44 nominal species described by Theobald from Brazil are extant and all are in the BM collection: 14. *Anopheles (A.) maculipes*; 17. *Anopheles (A.) mediopunctatus*; 51. *Anopheles (N.) niger*; 66. *Anopheles (K.) lutzii*; 72. *Toxorhynchites (A.) purpureus*; 80. *Toxorhynchites (L.) chrysocephalus*; 94. *Trichoprosopon (S.) fluviatile*; 103. *Trichoprosopon (R.) lunatum*; 130. *Wyeomyia (D.) luteoventralis*; 150. *Phoniomyia longirostris*; 152. *Phoniomyia pallidoventer*; 155. *Phoniomyia quasilongirostris*; 159. *Limatus durhamii*; 161. *Limatus paraensis*; 163. *Sabethes (S.) albiprivus*; 170. *Sabethes (S.) nitidus*; 176. *Sabethes (S.) purpureus*; 181. *Sabethes (Sabethoides) confusus*; 188. *Sabethes (Sabethinus) albiprivatus*; 193. *Coquillettidia (R.) arribalzagae*; 201. *Mansonia (M.) amazonensis*; 206. *Mansonia (M.) pseudotitillans*; 213. *Uranotaenia geometrica*; 217. *Uranotaenia pallidoventer*; 232. *Psorophora (J.) lutzii*; 233. *Psorophora (G.) apicalis (neoapicalis, new name)*; 238. *Aedes (O.) crinifer*; 247. *Aedes (O.) serratus*; 251. *Aedes (F.) mediomaculatus*; 252. *Aedes (F.) tripunctatus*; 270. *Culex (C.) corniger*; 272. *Culex (C.) bilineatus*; 302. *Culex (Mel.) humilis*; 304. *Culex (C.) indecorabilis*; 310. *Culex (Mel.) nigrescens*; 312. *Culex (Mel.) nigricorpus*; 314. *Culex (Mel.) ocellatus*; 339. *Culex (Micr.) imitator*; 340. *Culex (Micr.) argenteoumbrosus*; 347. *Culex (Micr.) pleuristriatus*; 359. *Culex (Anoed.) luteopleurus*; 394. *Sayomyia braziliensis*.

The holotype of 175. *Sabethes (S.) lutzii* may be in the IOC collection. The type material of 282. *Culex (C.) virgultus*, originally in BM, has not been located (LU; see Stone, 1957:341-342; Belkin, 1968:21).

There has been some confusion regarding several nominal species described as new by Theobald (1907) with supposed Lutz manuscript names. In the Addenda (p. [630]) in the same work Theobald gives references to Lutz's descriptions (1905, incorrectly as 1906) of these species as well as to his own. Therefore we consider that Theobald did not propose new nominal species and merely redescribed Lutz's species, in spite of the fact that later (Theobald, 1910) he attributed 2 of these species to himself and the remainder to Lutz in Theobald, 1907. Stone, Knight and Starcke (1959) did not consider the Theobald descriptions as valid proposals of new taxa except for *Sabethinus aurescens*. Belkin (1968:30) followed the above authors and listed *aurescens* Theobald, 1907 among the validly proposed nominal taxa. We see no reason for this exception and therefore are eliminating this name also.

The majority of the Brazilian species described by Theobald were based on material sent by Adolpho Lutz. In instances where the localities were not specified for this material we have followed the same practice in restricting them as with species described by Adolpho Lutz himself (see). We have also restricted type localities for some species based on material from other sources as follows. E.E. Austen collected 201. *Mansonia (M.) amazonensis* aboard a ship on the Amazon; the locality is restricted here to one of the ports mentioned, Gurupa. The type material of 72. *Toxorhynchites (A.) purpureus* was collected by H.W. Bates in the Amazon region; its locality is restricted to Manaus. H.E. Durham (1902) collected all his material in Para, the contemporary name for the city of Belem; accordingly the type lo-



cality of all the 9 species described by Theobald from Durham material is restricted to this city. The same restriction is made for the type locality of species based on E.A. Goeldi material stated to be from Para.

**Thomas, Harold Wolferstan.** See Newstead for the 2 Brazilian nominal species described by Newstead and Thomas.

**Toda, Amazonia.** See Forattini for 1 species described by Forattini and Toda.

**Trapido, Harold.** See Galindo for the 1 species described from Brazil by Galindo, Carpenter and Trapido.

**Unti, Ovidio.** Belkin did not find type material of the 5 nominal species or subspecies described by Unti in any of the Brazilian institutions and therefore we consider that these types are non-existent (NE): 44. *Anopheles (N.) ramosi*; 45. *Anopheles (N.) arthuri*; 46. *Anopheles (N.) artigasi*; 47. *Anopheles (N.) albertoi*; 55. *Anopheles (N.) ayrozai*.

**Walker, Francis.** The holotypes or lectotypes of all but 1 of the 7 species described from Brazil or South America without locality specified are in BM: 207. *Mansonia (M.) titillans*; 224. *Psorophora (P.) scintillans*; 228. *Psorophora (J.) discruciens*; 240. *Aedes (O.) flavicosta*; 255. *Aedes (F.) terreus*; 260. *Aedes (S.) exagitantans*. The holotype of 235. *Psorophora perterrens* is non-existent (NE).

Since the locality of Para [Belem] was given for 2 of the above species, we have restricted the type locality to the vicinity of Belem for another species, *titillans*, which was described from Brazil. For *flavicosta*, stated to be from the Amazon Region, we have designated Manaus as the type locality. We have restricted the type locality to the vicinity of the city of Rio de Janeiro for 3 species, *discrucians*, *perterrens* and *terrens*, which were stated to be from South America.

**Whitman, Loring.** See Lane for 11 species described by Lane and Whitman.

**Wiedemann, Christian R.W.** Type material of all 6 species described by Wiedemann from Brazil is in existence: in ZMC, 172. *Sabethes (S.) remipes* (holotype); in SNG, 73. *Toxorhynchites (A.) trichopygus* (syntypes), 239. *Aedes (O.) fulvus* (holotype); in NMW, 81. *Toxorhynchites (L.) ferox* (syntypes, also in SNG), 83. *Toxorhynchites (L.) violaceus* (lectotype), 279. *Culex (C.) aestuans*.

In only one instance, *violaceus*, was a specific locality (Bahia) indicated, however we have restricted the type localities of all the other species to the vicinity of Salvador (Bahia), the current name of the same city.

## DEPOSITORIES

**A (Author's collection)** - Private collections; see Duret.

**BM (British Museum (Nat. Hist.), Cromwell Road, London, S.W. 7).** The BM collection contains the type of the largest number of topotypic Brazilian species (83): 1 species described by Christophers; 3 by Edwards, 7 by Evans, 1 by Giles, 6 by Gordon & Evans, 2 by Lane, 13 by Lutz, 2 by Newstead & Thomas, 42 by Theobald and 6 by Walker. Except as noted all of these are represented by holotypes or previously designated lectotypes: 14. *Anopheles (A.) maculipes*; 16. *Anopheles (A.) amazonicus* (type locality restricted); 17. *Anopheles (A.) mediopunctatus*; 51. *Anopheles (N.) niger*; 66. *Anopheles (K.) lutzii* (*cruzii* and *adolphoi*, new names); 72.



*Toxorhynchites* (A.) *purpureus* (type locality restricted); 76. *Toxorhynchites* (L.) *horei*; 79. *Toxorhynchites* (L.) *solstitialis* (new lectotype); 80. *Toxorhynchites* (L.) *chrysocephalus*; 91. *Trichoprosopon* (T.) *pallidiventer* (new lectotype); 94. *Trichoprosopon* (S.) *fluviatile*; 103. *Trichoprosopon* (R.) *lunatum*; 112. *Wyeomyia* (W.) *medioalbipes* (new lectotype); 113. *Wyeomyia* (W.) *oblita* (syntype; also IOC); 130. *Wyeomyia* (D.) *luteoventralis*; 133. *Wyeomyia* (D.) *negrensis*; 134. *Wyeomyia* (D.) *personata* (new lectotype); 150. *Phoniomyia* *longirostris*; 152. *Phoniomyia* *pallidoventer*; 155. *Phoniomyia* *quasilongirostris*; 159. *Limatus* *durhamii*; 161. *Limatus* *paraensis*; 163. *Sabethes* (S.) *albiprivus*; 164. *Sabethes* (S.) *albiprivatus* (new lectotype); 165. *Sabethes* (S.) *amazonicus*; 166. *Sabethes* (S.) *longfieldae*; 169. *Sabethes* (S.) *argyronotum*; 170. *Sabethes* (S.) *nitidus*; 176. *Sabethes* (S.) *purpureus*; 181. *Sabethes* (*Sabethoides*) *confusus*; 184. *Sabethes* (*Sabethinus*) *aurescens* (new lectotype); 187. *Sabethes* (*Sabethinus*) *intermedius* (new lectotype); 188. *Sabethes* (*Sabethinus*) *albiprivatus* (*melanonymphe*, new name); 193. *Coquillettia* (R.) *arribalzagae*; 201. *Mansonia* (M.) *amazonensis* (type locality restricted); 206. *Mansonia* (M.) *pseudotitillans*; 207. *Mansonia* (M.) *titillans* (type locality restricted); 209. *Uranotaenia* *albitarsis*; 213. *Uranotaenia* *geometrica*; 217. *Uranotaenia* *pallidoventer*; 219. *Orthopodomyia* *longipalpis*; 224. *Psorophora* (P.) *scintillans*; 228. *Psorophora* (J.) *discrucians* (type locality restricted); 229. *Psorophora* (J.) *arribalzagae*; 232. *Psorophora* (J.) *lutzii*; 233. *Psorophora* (G.) *apicalis* (*neoapicalis*, new name); 238. *Aedes* (O.) *crinifer*; 240. *Aedes* (O.) *flavicosta* (type locality restricted); 247. *Aedes* (O.) *serratus*; 249. *Aedes* (F.) *braziliensis*; 250. *Aedes* (F.) *fluviatilis* (new lectotype); 251. *Aedes* (F.) *mediomaculatus*; 252. *Aedes* (F.) *tripunctatus*; 253. *Aedes* (F.) *leucomelas* (*leucocelaenus*, new name; new lectotype); 255. *Aedes* (F.) *terrens* (type locality restricted); 256. *Aedes* (F.) *oswaldi* (new lectotype); 260. *Aedes* (S.) *exagitans*; 270. *Culex* (C.) *corniger*; 272. *Culex* (C.) *bilineatus* (type locality restricted); 281. *Culex* (C.) *spinosus* (new lectotype); 283. *Culex* (Mel.) *gordoni*; 287. *Culex* (Mel.) *innominatus* (type locality restricted); 296. *Culex* (Mel.) *manaosensis*; 302. *Culex* (Mel.) *humilis*; 304. *Culex* (Mel.) *indecorabilis*; 310. *Culex* (Mel.) *nigrescens*; 311. *Culex* (Mel.) *clarki* (type locality restricted); 312. *Culex* (Mel.) *nigricorpus*; 314. *Culex* (Mel.) *ocellatus*; 322. *Culex* (Mel.) *theobaldi* (new lectotype); 323. *Culex* (Mel.) *chrysothorax*; 324. *Culex* (Mel.) *thomasi*; 328. *Culex* (Mochl.) *innovator* (type locality restricted); 339. *Culex* (Micr.) *imitator*; 340. *Culex* (Micr.) *argenteoumbrosus*; 347. *Culex* (Micr.) *pleuristriatus*; 353. *Culex* (Aed.) *hildebrandi* (type locality restricted); 359. *Culex* (Anoed.) *luteopleurus*; 360. *Culex* (Anoed.) *originator*; 375. *Corethrella* *kummi* (type locality restricted); 380. *Corethrella* *tarsata*; 394. *Sayomyia* *braziliensis* (type locality restricted); 397. *Edwardsops* *breviselector*.

The only type material of Brazilian mosquitoes that is missing in the BM collection is for 235. *Psorophora* *perterrens* and 282. *Culex* (C.) *virgultus*.

Casal (Osvaldo H. Casal, Departamento de Entomologia Sanitaria, Instituto Nacional de Microbiologia, Avda. Velez Sarsfield 563, Buenos Aires). The only type material in the private collection of Casal is that of 355. *Culex* (Aed.) *clastrieri*.

DEI (Deutsches Entomologisches Institut; now Institut für Pflanzenschutzforschung, Zweigstelle Eberswalde, Abteilung Taxonomie der Insekten, Schicklerstrasse 5, 13 Eberswalde, DDR). The holotype of 4. *Chagasia* *stigmopteryx* Martini, 1932, formerly believed to be non-existent, has been located in DEI by G. Morge.

Duret (Jose P. Duret, Venezuela 2130, Buenos Aires). The holotypes of 15 species described by Duret and 2 species described by Duret and Damasceno are in the



private collection of Duret: 278. *Culex* (C.) *paramaxi*; 286. *Culex* (Mel.) *bahiensis*; 290. *Culex* (Mel.) *mojuensis*; 292. *Culex* (Mel.) *contei*; 293. *Culex* (Mel.) *crisovai*; 297. *Culex* (Mel.) *ernanii*; 300. *Culex* (Mel.) *faurani*; 301. *Culex* (Mel.) *flochi*; 306. *Culex* (Mel.) *isabelae*; 307. *Culex* (Mel.) *johnnyi*; 308. *Culex* (Mel.) *kerri*; 319. *Culex* (Mel.) *rachoui*; 321. *Culex* (Mel.) *silvai*; 327. *Culex* (Mochl.) *galvaei*; 329. *Culex* (Mochl.) *palaciosi*; 356. *Culex* (Anoed.) *belemensis*; 358. *Culex* (Anoed.) *damascenoi*.

FH (Faculdade de Higiene e Saude Publica, Av. Dr. Arnaldo, 715, Caixa Postal 8099, Sao Paulo, S.P.). The FH collection is in excellent condition, but the type material is not segregated. The type material originally in SPM has been transferred to FH. At present the collection contains type material of 76 species: 2 species described by Antunes & Lane, 1 by Barretto & Coutinho, 7 by Cerqueira, 1 by Cerqueira & Lane, 1 by Correa, 1 by Correa & Cerqueira, 5 by Correa & Ramalho, 1 by Correa & Ramos, 1 by Coutinho & Forattini, 2 by Fonseca & Ramos, 1 by Forattini, Rabello & Lopes, 1 by Forattini & Toda, 1 by Galindo, Carpenter & Trápido, 2 by Galvao, 1 by Galvao & Lane, 38 by Lane, 1 by Lane & Antunes, 2 by Lane & Cerqueira, 2 by Lane & Coutinho, 1 by Lane & Forattini, 1 by Lane, Forattini & Rabello, 1 by Lane & Guimaraes, 1 by Lane & Ramalho, and 1 by Lutz. Except as noted, all the species are represented by holotypes or previously designated lectotypes: 8. *Anopheles* (A.) *anchietai*; 9. *Anopheles* (A.) *bustamentei*; 19. *Anopheles* (A.) *limai* (*costalimai*, new name) 20. *Anopheles* (A.) *costai*; 26. *Anopheles* (A.) *rachoui* (new lectotype); 32. *Anopheles* (N.) *imperfectus*; 54. *Anopheles* (N.) *noroestensis* (new lectotype; possibly partly in FMSP); 67. *Anopheles* (K.) *montemor*; 68. *Anopheles* (K.) *laneanus*; 96. *Trichoprosopon* (I.) *luederwaldti*; 108. *Wyeomyia* (W.) *downsi*; 117. *Wyeomyia* (C.) *dyari*; 142. *Phoniomyia antunesi* (syntypes); 145. *Phoniomyia diabolica*; 148. *Phoniomyia galvaei*; 151. *Phoniomyia lopesi*; 173. *Sabethes* (S.) *forattinii*; 174. *Sabethes* (S.) *lanei*; 179. *Sabethes* (S.) *shannoni*; 180. *Sabethes* (S.) *spixi*; 183. *Sabethes* (*Sabethoides*) *tridentatus*; 195. *Coquillettidia* (R.) *hermanoi*; 199. *Coquillettidia* (R.) *neivai*; 200. *Coquillettidia* (R.) *shannoni*; 205. *Mansonia* (M.) *peessoai*; 210. *Uranotaenia davisii*; 212. *Uranotaenia burkii*; 214. *Uranotaenia mathesoni*; 227. *Psorophora* (J.) *amazonica*; 243. *Aedes* (O.) *pennai*; 254. *Aedes* (F.) *leucophoebus*; 262. *Haemagogus* (S.) *baresii*; 265. *Culex* (C.) *abnormalis*; 267. *Culex* (C.) *airozai*; 268. *Culex* (C.) *brami*; 271. *Culex* (C.) *deanei*; 273. *Culex* (C.) *foliaceus*; 274. *Culex* (C.) *forattinii*; 276. *Culex* (C.) *mauesensis*; 280. *Culex* (C.) *renatoi*; 344. *Culex* (Micr.) *lanei*; 349. *Culex* (Micr.) *shopei*; 361. *Culex* (Car.) *anduzei*; 363. *Culex* (Car.) *iridescens* (neotype); 364. *Culex* (Car.) *soperi*; 368. *Corethrella confusa*; 369. *Corethrella bromelicola*; 370. *Corethrella cardosoi*; 371. *Corethrella edwardsi* (type locality restricted); 372. *Corethrella flavitibia*; 373. *Corethrella fulva*; 374. *Corethrella infusata*; 376. *Corethrella lopesi*; 377. *Corethrella pillosa*; 378. *Corethrella selvicola*; 379. *Corethrella striata*; 381. *Corethrella trava-ssoi*; 382. *Corethrella vittata*; 383. *Corethrella whitmani* (type locality restricted); 384. *Lutzomiops alticola*; 386. *Lutzomiops barrettoii*; 387. *Lutzomiops coutinhoi*; 388. *Lutzomiops niger*; 389. *Lutzomiops iridescens*; 390. *Lutzomiops juquianus*; 391. *Lutzomiops lutzi*; 392. *Lutzomiops manaosensis*; 393. *Lutzomiops nigrescens*; 395. *Sayomyia antunesi*; 396. *Sayomyia souzai*, 398. *Edwardsops magnificus*; 399. *Edwardsops unicolor*; 400. *Dixella chapadensis*; 402. *Dixella paulistana*; 403. *Dixella torrentia*; 404. *Dixella wygodzinskyi* (new lectotype).

As noted under Lane in the authors section, we consider that the specimens in FH labelled as holotypes of the following species are only paratypes: 143. *Phonio-*



*myia bonnei*; 144. *Phoniomyia davisi*; 156. *Phoniomyia neivai* and 157. *Phoniomyia theobaldi*.

Type material of 109. *Wyeomyia (W.) leucotarsis*, stated to be in FH by Stone, Knight and Starcke (1959:79), is not in this collection.

FMRP (Departamento de Parasitologia, Faculdade de Medicina, Ribeirao Preto, S.P.). The holotypes of the 3 species described by Duret and Barretto, 285. *Culex (Mel.) aureonotatus*, 289. *Culex (Mel.) bifoliolatus* and 325. *Culex (Mel.) trilobulatus*, were not examined by Belkin but J.P. Duret assured him that they are in FMRP.

FMSM (Departamento de Parasitologia, Faculdade de Medicina, Sao Paulo, S.P.). It appears that the mosquito collection in FMSM has not been taken care of in several years. It is in deplorable condition and unless prompt action is taken the remaining type material will be lost. The only type material found by Belkin in 1969 was for the following 7 species: 31. *Anopheles (N.) marajoara* Galvao & Damasceno (doubtful syntypes); 34. *Anopheles (N.) antunesi* Galvao & Amaral (holotype); 40. *Anopheles (N.) pessoai* Galvao & Lane (holotype); 48. *Anopheles (N.) galvaoi* Causey, Deane & Deane (lectotype by present designation); 49. *Anopheles (N.) lanei* Galvao & Amaral (holotype); 70. *Anopheles (L.) pseudotibiamaculatus* Galvao & Barretto (holotype); 350. *Culex (Micr.) worontzowi* Pessoa & Galvao (holotype).

Type material of the following 2 species, originally stated to be in FMSM, was not found; its location is considered unknown (LU) for the present, although it seems probable that it has been lost: 60. *Anopheles (N.) konderi* Galvao & Damasceno; 208. *Mansonia (M.) wilsoni* Barretto & Coutinho.

A male of 54. *Anopheles (N.) noroestensis* Galvao & Lane, 1937 in FMSM (343) may be the specimen from which the genitalia, designated as lectotype of this species (in FH), was removed.

IB (Instituto Butantan, Butanta, Sao Paulo, S.P.). The small mosquito collection in IB is in good condition. The specimens have been renumbered but there is a cross reference to the original numbers. The few Adolpho Lutz specimens do not include any type material. The only type material in IB consists of the holotypes of the 2 species described by Prado: 192. *Coquillettia (R.) albifera* and 211. *Uranotaenia ditaenionota*.

IBSP (Instituto Biologico, Sao Paulo, S.P.). The mosquito collection in the Animal Parasitology section of the institute is in poor condition; its register has been lost. Fortunately some type material of the only species originally deposited in this collection, 269. *Culex (C.) carcinoxenus*, was found in IOC (see).

IOC (Instituto Oswaldo Cruz, Av. Brasil, Manguinhos, Rio de Janeiro, GB.). The mosquito collection in IOC is the oldest in Brazil. As indicated in the authors section under Lima and Lutz, apparently the specimens were at one time pinned in small boxes. This arrangement may date back to Lutz or to Peryassu or Neiva. Later some of the specimens from the old collection were transferred to individual tubes, probably by Costa Lima. Others are still in the original boxes. Additions to the collection were put in individual tubes except for the types of sabethines described by Lane and Cerqueira which are in unit trays. We have not been able to find in IOC some of the types stated to have been deposited in this collection by the original authors with indication of collection number. We did not find a register of the collection numbers in IOC. The only records available to us were cards arranged in a taxonomic order. It is apparent that IOC has had a very liberal policy of loan-



ing type specimens. In a few instances notations were made on the cards but in other cases it seems that the cards were either removed from the file or no record of the loan was entered. We did not locate the collection of the Rockefeller Foundation Laboratory which was originally in IOC.

We found apparently authentic type material of 77 topotypic Brazilian nominal species in IOC: 1 species described by Castro; 1 by Cerqueira; 3 by Chagas; 3 by Cruz; 1 by Del Ponte; 3 by Del Ponte and Cerqueira; 31 species by Lane and Cerqueira; 9 by Lima; 1 by Lima, Guitton and Ferreira; 9 by Lutz; 4 by Lutz and Neiva; 2 by Neiva and Pinto; 8 by Peryassu; 1 by Theobald. Because of insufficient data on the specimens and need for further study of the material we have refrained from designating lectotypes or positively identifying the holotypes of several species as indicated in the following list; the species without notation are represented by holotypes: 6. *Anopheles (S.) lineatus* (possibly holotype); 11. *Anopheles (A.) evandroi*; 13. *Anopheles (A.) intermedius* (possibly syntype); 15. *Anopheles (A.) matto-grossensis*; 21. *Anopheles (A.) minor* (syntypes); 22. *Anopheles (A.) lutzii* (*peryassui*, new name; possibly syntypes); 25. *Anopheles (A.) pseudomaculipes* (possibly syntype); 39. *Anopheles (N.) braziliensis* (syntypes); 50. *Anopheles (N.) lutzii* (syntypes); 61. *Anopheles (N.) parvus* (possibly syntypes); 62. *Anopheles (N.) rondoni* (new lectotype); 64. *Anopheles (N.) cuyabensis* (new lectotype); 71. *Toxorhynchites (A.) catharinensis*; 75. *Toxorhynchites (L.) bambusicola* (syntypes); 78. *Toxorhynchites (L.) pusillus* (syntypes); 82. *Toxorhynchites (L.) posticatus* (syntypes); 85. *Toxorhynchites (L.) fluminensis* (possibly syntype); 86. *Trichoprosopon (T.) compressum* (syntypes); 90. *Trichoprosopon (T.) obscurum*; 92. *Trichoprosopon (T.) soaresi*; 93. *Trichoprosopon (L.) brevipes* (new lectotype); 95. *Trichoprosopon (S.) longipalpis* (possibly syntype); 97. *Trichoprosopon (C.) walcotti*; 98. *Trichoprosopon (R.) castroi*; 100. *Trichoprosopon (R.) edwardsianum*; 101. *Trichoprosopon (R.) humboldti*; 104. *Trichoprosopon (R.) reversum*; 105. *Trichoprosopon (R.) simile*; 106. *Trichoprosopon (R.) theobaldi*; 107. *Wyeomyia (W.) arthrostigma* (new lectotype); 110. *Wyeomyia (W.) limai*; 111. *Wyeomyia (W.) lutzii* (syntypes); 113. *Wyeomyia (W.) oblita* (syntype; also BM); 114. *Wyeomyia (W.) pintoii*; 115. *Wyeomyia (W.) sabethea*; 116. *Wyeomyia (W.) serrata* (new lectotype); 118. *Wyeomyia (C.) kummi*; 121. *Wyeomyia (A.) rooti* (*alani*, new name); 122. *Wyeomyia (D.) airosai*; 124. *Wyeomyia (D.) cesari*; 126. *Wyeomyia (D.) finlayi*; 127. *Wyeomyia (D.) howardi*; 128. *Wyeomyia (D.) kerri*; 129. *Wyeomyia (D.) knabi*; 136. *Wyeomyia (D.) rooti* (new lectotype); 137. *Wyeomyia (D.) delpontei*; 138. *Wyeomyia (D.) shannoni*; 140. *Wyeomyia (D.) tarsata*; 141. *Wyeomyia (D.) undulata*; 143. *Phoniomyia bonnei*; 144. *Phoniomyia davisii*; 147. *Phoniomyia flabellata*; 153. *Phoniomyia palmata*; 156. *Phoniomyia neivai*; 157. *Phoniomyia theobaldi*; 167. *Sabethes (S.) batesi*; 175. *Sabethes (S.) lutzii* (possibly holotype); 177. *Sabethes (S.) purpureus* (*remipusculus*, new name; new lectotype); 185. *Sabethes (Sabethinus) fabricii*; 186. *Sabethes (Sabethinus) lutzianus*; 189. *Sabethes (Sabethinus) soperi*; 190. *Sabethes (Sabethinus) whitmani*; 191. *Coquillettidia (R.) albicosta* (new lectotype); 194. *Coquillettidia (R.) chrysonotum* (syntypes, also in Mus Nac); 196. *Coquillettidia (R.) juxtamansonia* (new lectotype); 203. *Mansonia (M.) chagasi*; 218. *Orthopodomyia albicosta* (new lectotype); 220. *Orthopodomyia townsendi*; 221. *Orthopodomyia sampaioi*; 225. *Psorophora (P.) genumaculata* (new lectotype); 226. *Psorophora (J.) albigena*; 230. *Psorophora (J.) forceps*; 234. *Psorophora (G.) scutipunctata* (possibly syntypes); 269. *Culex (C.) carcinoxenus* (new lectotype); 291. *Culex (Mel.) chrysothorax* (new lectotype); 299. *Culex (Mel.) fasciolatus* (possibly syntypes); 309. *Culex (Mel.) lugens* (syntypes).



Type material of the following species, stated to be in IOC, was not located in this collection; it was probably borrowed and not returned or misplaced: 1. *Chagasia fajardi*; 28. *Anopheles (A.) tibiamaculatus*; 63. *Anopheles (N.) triannulatus*; 119. *Wyeomyia (C.) mattinglyi*; 135. *Wyeomyia (D.) brucei*; 162. *Limatus flavisetosus*; 168. *Sabethes (S.) belisarioi*; 215. *Uranotaenia noctivaga*; 236. *Aedes (O.) aenigmaticus*; 242. *Aedes (O.) lepidus*; 244. *Aedes (O.) perventor*; 245. *Aedes (O.) rhyacophilus*; 261. *Haemagogus (L.) tropicalis*; 352. *Culex (Aed.) amazonensis*.

For other material possibly in IOC see LU under the following senior authors: Chagas; Castro; Cerqueira; Cruz; Del Ponte; Lane; Lima; Lutz; Neiva; Peryassu; Shannon.

LU (Location unknown). Listed here are 49 nominal species whose types have not been located but may be extant. They are arranged according to senior authors with indication of depositories where additional search should be made before their type material can be declared to be non-existent.

Barretto & Coutinho; possibly in FMSP: 202. *Mansonia (M.) cerqueirai*; 208. *Mansonia (M.) wilsoni*.

Castro; should be in IOC: 162. *Limatus flavisetosus*.

Cerqueira & Antunes; Cerqueira & Costa; Cerqueira & Paraense; should be in IOC: 236. *Aedes (O.) aenigmaticus*; 242. *Aedes (O.) lepidus*; 244. *Aedes (O.) perventor*; 261. *Haemagogus (L.) tropicalis*.

Chagas; should be in IOC: 53. *Anopheles (N.) nigratarsis*.

Cruz; should be in IOC: 2. *Chagasia neivae*.

Del Ponte; Delponte & Cerqueira; should be in IOC or FH: 135. *Wyeomyia (D.) brucei*; 139. *Wyeomyia (D.) subcomplosa*.

Dyar & Knab; possibly in NMW: 84. *Toxorhynchites (L.) ambiguus*.

Galvao; Galvao & Damasceno; Galvao, Lane & Correa; should be in FMSP: 33. *Anopheles (N.) domesticus*; 42. *Anopheles (N.) paulistensis*; 60. *Anopheles (N.) konderi*; 65. *Anopheles (N.) chagasi*.

Kumm; possibly in IOC or USNM: 335. *Culex (Micr.) davisii*.

Lane; should be in IOC or FH: 109. *Wyeomyia (W.) leucotarsis*; 119. *Wyeomyia (C.) mattinglyi*.

Lane & Whitman; originally in Rockefeller Foundation Laboratory at IOC: 313. *Culex (Mel.) nigrimacula*; 332. *Culex (Micr.) aureus*; 333. *Culex (Micr.) carioca*; 336. *Culex (Micr.) dubitans*; 341. *Culex (Micr.) retrosus*; 342. *Culex (Micr.) fuscatus*; 343. *Culex (Micr.) intermedius*; 348. *Culex (Micr.) reducens*; 357. *Culex (Anoed.) canaanensis*; 362. *Culex (Car.) antunesi*; 365. *Culex (Car.) wilsoni*.

Lima; should be in IOC: 245. *Aedes (O.) rhyacophilus*.

Lutz; should be in IOC: 1. *Chagasia fajardi*; 263. *Haemagogus (S.) capricornii* (neotype); 352. *Culex (Aed.) amazonensis*.

Neiva; Neiva & Pinto; should be in IOC: 28. *Anopheles (A.) tibiamaculatus*; 63. *Anopheles (N.) triannulatus*; 168. *Sabethes (S.) belisarioi*; 215. *Uranotaenia noctivaga*.

Peryassu; should be in IOC or MusNac: 3. *Chagasia maculata*; 18. *Anopheles (A.) rockefelleri*; 23. *Anopheles (A.) alagoanii*; 69. *Anopheles (L.) gilesi*; 178. *Sabethes (S.) quasicyaneus*; 216. *Uranotaenia argenteopennis*.

Ramos; possibly in SPM: 36. *Anopheles (N.) guarujaensis*.

Rondani; possibly in Bologna (see Belkin, 1968:53): 87. *Trichoprosopon (T.) digitatum*; 246. *Aedes (O.) scapularis*.

Shannon & Cerqueira; should be in IOC: 231. *Psorophora (J.) lanei*.



Theobald; should be in BM: 282. *Culex (C.) virgultus*.

MNHP (Museum National d'Histoire Naturelle, Laboratoire d'Entomologie Generale, 45 bis r. Buffon, Paris, V<sup>e</sup>). The holotypes of 2 Brazilian species described by Macquart are in MNHP: 237. *Aedes (O.) albifasciatus* and 259. *Aedes (S.) toxorhynchus*.

Museu Nacional, Rio de Janeiro (Quinta da Boa Vista, Rio de Janeiro, GB.). Syntypes of 3 Peryassu species were found in this collection: 29. *Anopheles (N.) allopha*; 58. *Anopheles (N.) oswaldoi*; 194. *Coquillettidia (R.) chrysonotum*. For additional species possibly to be found in this collection see LU under Peryassu.

NE (Non-existent). Type material of the following 27 species, listed by authors, has not been located and it is reasonably certain that it is non-existent.

Bonne-Wepster & Bonne, originally in USNM: 158. *Phoniomyia tripartita*.

Bourroul: 77. *Toxorhynchites (L.) mariae*.

Causey, Deane & Deane: 5. *Chagasia rozeboomi*.

Correa: 10. *Anopheles (A.) geometricus*.

Galvao & Lane; originally in FMSP: 30. *Anopheles (N.) limai*.

Kollar: 367. *Culex molestus*.

Laveran: 160. *Limatus curvirostris*.

Lutz; originally probably in IOC: 74. *Toxorhynchites (A.) neglectus*; 88. *Trichoprosopon (T.) splendens*; 120. *Wyeomyia (M.) leucostigma*; 123. *Wyeomyia (D.) bourrouli*; 125. *Wyeomyia (D.) confusa*; 258. *Aedes (H.) fulvithorax*; 330. *Culex (Micr.) albipes*.

Macquart; originally in MNHP: 223. *Psorophora (P.) pilipes*.

Neveu-Lemaire; originally in FMP: 248. *Aedes (O.) mathisi*; 354. *Culex americanus*.

Robineau-Desvoidy; originally some in MNHP: 37. *Anopheles (N.) argyritarsis*; 171. *Sabethes (S.) locuples*; 222. *Psorophora (P.) tibialis*; 366. *Culex pallipes*.

Unti: 44. *Anopheles (N.) ramosi*; 45. *Anopheles (N.) arthuri*; 46. *Anopheles (N.) artigasi*; 47. *Anopheles (N.) albertoi*; 55. *Anopheles (N.) ayrozai*.

Walker; originally in BM: 235. *Psorophora perterrens*.

NMW (Naturhistorisches Museum, Burgring 7, Wien 1). Type material of only 3 Brazilian species is in NMW: 81. *Toxorhynchites (L.) ferox (wiedemanni, new name; syntypes; also in SNG)*; 83. *Toxorhynchites (L.) violaceus* (lectotype); 279. *Culex (C.) aestuans* (lectotype); all described by Wiedemann.

SNG (Natur-Museum and Forschungs-Institut Senckenberg, Senckenberg-Anlage 25, 6 Frankfurt 1). Type material of only 3 Brazilian species is in SNG: 73. *Toxorhynchites (A.) trichopygus* (syntypes); 81. *Toxorhynchites (L.) ferox (wiedemanni, new name; syntypes; also in NMW)*, 239. *Aedes (O.) fulvus*; all described by Wiedemann.

SPM (Servico de Profilaxia da Malaria, Sao Paulo, S.P.). All the type material formerly in the SPM collection has been transferred to FH. See also LU under Ramos.

Universidade do Minas Gerais (Belo Horizonte). The exact location of the type of 401. *Dixella limai*, described by Santos, is unknown.

USNM (U.S. National Museum of Natural History, Wash., D.C. 20560). Holotypes or lectotypes of 51 topotypic Brazilian nominal species are in USNM: 1 species described by Berlin; 1 by Causey; 1 by Causey, Deane, Deane & Sampaio;



1 by Davis; 5 by Dyar; 4 by Dyar & Shannon; 1 by Forattini; 1 by Galvao & Lane; 1 by Komp; 1 by Lane; 1 by Lane & Cerqueira; 1 by Lutz; 1 by Matheson; 24 by Root; 1 by Rozeboom & Gabaldon; 1 by Serafim and Davis; 3 by Shannon; 2 by Stone. 7. *Anopheles* (S.) *lewisi* (*thomasi*, new name); 12. *Anopheles* (A.) *fluminensis*; 24. *Anopheles* (A.) *celidopus*; 27. *Anopheles* (A.) *shannoni*; 35. *Anopheles* (N.) *emilianus*; 38. *Anopheles* (N.) *sawyeri*; 41. *Anopheles* (N.) *darlingi*; 43. *Anopheles* (N.) *strodei*; 52. *Anopheles* (N.) *guarani*; 56. *Anopheles* (N.) *goeldii*; 57. *Anopheles* (N.) *dunhami*; 59. *Anopheles* (N.) *metcalfi*; 89. *Trichoprosopon* (T.) *townsendi*; 99. *Trichoprosopon* (R.) *cerqueirai*; 102. *Trichoprosopon* (R.) *trichopus*; 131. *Wyeomyia* (D.) *melanoides*; 132. *Wyeomyia* (D.) *mystes*; 146. *Phoniomyia* *edwardsi*; 149. *Phoniomyia* *incaudata*; 154. *Phoniomyia* *pilicauda*; 182. *Sabethes* (*Sabethoides*) *glaucodaemon*; 197. *Coquillettidia* (R.) *hypocindyna*; 198. *Coquillettidia* (R.) *lynchi*; 204. *Mansonia* (M.) *indubitans*; 241. *Aedes* (O.) *jacobinae*; 257. *Aedes* (H.) *aureolineatus*; 264. *Culex* (L.) *brasiliae*; 266. *Culex* (C.) *acharistus*; 275. *Culex* (C.) *lygrus*; 277. *Culex* (C.) *oswaldoi*; 284. *Culex* (Mel.) *andricus*; 288. *Culex* (Mel.) *bequaerti*; 294. *Culex* (Mel.) *exedruss*; 295. *Culex* (Mel.) *dyius*; 298. *Culex* (Mel.) *evansae*; 303. *Culex* (Mel.) *inadmirabilis*; 305. *Culex* (Mel.) *cenus*; 315. *Culex* (Mel.) *automartus*; 316. *Culex* (Mel.) *oedipus*; 317. *Culex* (Mel.) *plectoporpe*; 318. *Culex* (Mel.) *putumayensis*; 320. *Culex* (Mel.) *serratimarge*; 326. *Culex* (Mochl.) *megapus*; 331. *Culex* (Micr.) *aphylactus*; 334. *Culex* (Micr.) *trychnus*; 337. *Culex* (Micr.) *gairus*; 338. *Culex* (Micr.) *hedys*; 345. *Culex* (Micr.) *microphyllus*; 346. *Culex* (Micr.) *neglectus*; 351. *Culex* (Aed.) *accelerans*; 385. *Lutzomiops* *amazonicus*.

ZMC (Universitetets Zoologiske Museum, Universitetsparken 15, Kobenhavn). The only Brazilian culicid type material in ZMC is the holotype of Wiedemann's 172. *Sabethes* (S.) *remipes*.

## LOCALITIES

### ACRE

Feijo: 254. *Aedes* (F.) *leucophoebus*.  
Rio Branco: 48. *Anopheles* (N.) *galvaoi*.

### ALAGOAS

Maceio: 23. *Anopheles* (A.) *alagoanii*.

### AMAPA

Cunani: 248. *Aedes* (O.) *mathisi*; 354. *Culex* *americanus*.

### AMAZONAS

Coari: 60. *Anopheles* (N.) *konderi*.  
Itacoatiara: 287. *Culex* (Mel.) *innominatus*; 312. *Culex* (Mel.) *nigricorpus*; 328. *Culex* (Mochl.) *innovator*; 353. *Culex* (Aed.) *hildebrandi*.  
Manaus and vicinity: 16. *Anopheles* (A.) *amazonicus*; 65. *Anopheles* (N.) *chagasi*; 72. *Toxorhynchites* (A.) *purpureus*; 76. *Toxorhynchites* (L.) *horei* (Macapa); 88. *Trichoprosopon* (T.) *splendens*; 133. *Wyeomyia* (D.) *negrensis* (Macapa); 165. *Sabethes* (S.) *amazonicus* (Macapa); 173. *Sabethes* (S.) *forattinii* (km 23, route 17); 174. *Sabethes* (S.) *lanei* (km 23, route 17); 175. *Sabethes* (S.) *lutzii*; 179. *Sabethes*



(*S.*) *shannoni* (Igarape do Leao); 180. *Sabethes* (*S.*) *spixi* (km 23, route 17); 183. *Sabethes* (*Sabethoides*) *tridentatus* (Igarape de Bolivia); 209. *Uranotaenia albitarsis* (Macapa); 219. *Orthopodomyia longipalpis*; 227. *Psorophora* (*J.*) *amazonica* (Igarape do Taruma); 240. *Aedes* (*O.*) *flavicosta*; 249. *Aedes* (*F.*) *braziliensis* (Macapa); 262. *Haemagogus* (*S.*) *baresi* (Igarape do Taruma); 283. *Culex* (*Mel.*) *gordoni* (Bosque); 296. *Culex* (*Mel.*) *manaosensis*; 300. *Culex* (*Mel.*) *faurani*; 311. *Culex* (*Mel.*) *clarki*; 323. *Culex* (*Mel.*) *chrysothorax* (inner Flores swamp, Pensador); 324. *Culex* (*Mel.*) *thomasi*; 352. *Culex* (*Aed.*) *amazonensis*; 360. *Culex* (*Anoed.*) *originator* (Macapa); 392. *Lutzomiops manaosensis*; 397. *Edwardsops brevisector*.

Maues: 276. *Culex* (*C.*) *mauesensis*.

Rio Maues: 361. *Culex* (*Car.*) *anduzei*.

Rio Parauari: 267. *Culex* (*C.*) *airozai*.

Rio Preto, municipio Joao Goulard: 307. *Culex* (*Mel.*) *johnnyi*; 308. *Culex* (*Mel.*) *kerri*; 358. *Culex* (*Anoed.*) *damascenoi*.

Santo Antonio do Ica: 318. *Culex* (*Mel.*) *putumayensis*.

Tefe: 57. *Anopheles* (*N.*) *dunhami*; 102. *Trichoprosopon* (*T.*) *trichopus*.

## BAHIA

Camacari: 380. *Corethrella tarsata*.

Caravelas: 97. *Trichoprosopon* (*Ct.*) *walcotti*.

Gois Calmon (Muriqueira): 127. *Wyeomyia* (*D.*) *howardi*; 147. *Phoniomyia flabellata*.

Itaparica, Ilha de: 77. *Toxorhynchites* (*L.*) *mariae*; 330. *Culex* (*Micr.*) *albipes*.

Jacobina: 241. *Aedes* (*O.*) *jacobinae*.

Piraja: 189. *Sabethes* (*Sabethinus*) *soperi*; 257. *Aedes* (*H.*) *aureolineatus*.

Salvador (Bahia) and vicinity: 7. *Anopheles* (*S.*) *lewisi*; 73. *Toxorhynchites* (*A.*) *trichopygus*; 81. *Toxorhynchites* (*L.*) *ferox*; 83. *Toxorhynchites* (*L.*) *violaceus*; 84. *Toxorhynchites* (*L.*) *ambiguus*; 112. *Wyeomyia* (*W.*) *medioalbipes*; 119. *Wyeomyia* (*C.*) *mattinglyi*; 139. *Wyeomyia* (*D.*) *subcomplosa* [see also Cuiaba (Mato Grosso); Belem and Curralinho (Para); Sergipe]; 172. *Sabethes* (*S.*) *remipes*; 210. *Uranotaenia davisii*; 239. *Aedes* (*O.*) *fulvus*; 279. *Culex* (*C.*) *aestuans*; 335. *Culex* (*Micr.*) *davisii*; 375. *Corethrella kummi*.

Santo Amaro (municipio), Acude Sao Bento: 26. *Anopheles* (*A.*) *rachoui*.

Urucuca: 286. *Culex* (*Mel.*) *bahiensis*.

## CEARA

Sao Benedito: 5. *Chagasia rozeboomi*; 38. *Anopheles* (*N.*) *sawyeri*.

## ESPIRITO SANTO

Santa Teresa: 122. *Wyeomyia* (*D.*) *airosai*.

Sao Joao de Petropolis (Vale do Canaa): 92. *Trichoprosopon* (*T.*) *soaresi*; 190. *Sabethes* (*Sabethinus*) *whitmani*; 245. *Aedes* (*O.*) *rhyacophilus*; 357. *Culex* (*Anoed.*) *canaanensis*; 362. *Culex* (*Car.*) *antunesi*; 365. *Culex* (*Car.*) *wilsoni*; 383. *Corethrella whitmani*.

Vale do Rio Doce (see also Baixada Fluminense, state of Rio de Janeiro): 58. *Anopheles* (*N.*) *oswaldoi*; 194. *Coquillettidia* (*R.*) *chrysonotum*.

## GOIAS

Anapolis: 140. *Wyeomyia* (*D.*) *tarsata*.



Inhumas: 368. *Corethrella confusa*.

Ponte Ipe-Arcado: 258. *Aedes* (H.) *fulvithorax*.

## GUANABARA

Rio de Janeiro and vicinity: 13. *Anopheles* (A.) *intermedius* (see also Xerem, state of Rio de Janeiro); 18. *Anopheles* (A.) *rockefelleri*; 29. *Anopheles* (N.) *allopha* (see also state of Rio de Janeiro, Baixada Fluminense); 37. *Anopheles* (N.) *argyritarsis*; 50. *Anopheles* (N.) *lutzii* (Lagoa Rodrigo de Freitas); 66. *Anopheles* (K.) *lutzii*; 78. *Toxorhynchites* (L.) *pusillus* (Alto da Boa Vista); 85. *Toxorhynchites* (L.) *fluminensis*; 87. *Trichoprosopon* (T.) *digitatum*; 93. *Trichoprosopon* (L.) *brevipes* (Laranjeiras); 99. *Trichoprosopon* (R.) *cerqueirai*; 101. *Trichoprosopon* (R.) *humboldti* (Paineiras); 103. *Trichoprosopon* (R.) *lunatum* (Maua); 111. *Wyeomyia* (W.) *lutzi* (Alto da Boa Vista); 121. *Wyeomyia* (A.) *rooti*; 132. *Wyeomyia* (D.) *mystes*; 143. *Phoniomyia* *bonnei*; 149. *Phoniomyia* *incaudata*; 150. *Phoniomyia* *longirostris*; 152. *Phoniomyia* *pallidoventer*; 153. *Phoniomyia* *palmata*; 155. *Phoniomyia* *quasilongirostris* (Maua); 157. *Phoniomyia* *theobaldi*; 160. *Limatus* *curvirostris*; 171. *Sabethes* (S.) *locuples*; 176. *Sabethes* (S.) *purpureus*; 215. *Uranotaenia* *noctivaga* (Gavea); 216. *Uranotaenia* *argenteopennis* (see also Baixada Fluminense, state of Rio de Janeiro); 221. *Orthopodomyia* *sampaioi* (Tijuca); 222. *Psorophora* (P.) *tibialis*; 223. *Psorophora* (P.) *pilipes*; 228. *Psorophora* (J.), *discrucians*; 230. *Psorophora* (J.) *forceps* (Jacarepagua); 232. *Psorophora* (J.) *lutzii* (Quinta da Boa Vista); 233. *Psorophora* (G.) *apicalis*; 235. *Psorophora* *perterrens*; 237. *Aedes* (O.) *albifasciatus*; 246. *Aedes* (O.) *scapularis*; 247. *Aedes* (O.) *serratus* (Quinta da Boa Vista); 255. *Aedes* (F.) *terrens*; 259. *Aedes* (S.) *toxorhynchus*; 282. *Culex* (C.) *virgultus* (Quinta da Boa Vista); 291. *Culex* (Mel.) *chrysothorax* (Copacabana); 313. *Culex* (Mel.) *nigrimacula*; 315. *Culex* (Mel.) *automartus* (Jardim Botânico); 317. *Culex* (Mel.) *plectoporce* (Bangu); 332. *Culex* (Micr.) *aureus*; 333. *Culex* (Micr.) *carioca*; 336. *Culex* (Micr.) *dubitans*; 337. *Culex* (Micr.) *gairus* (Jardim Botânico); 340. *Culex* (Micr.) *argenteoumbrosus*; 341. *Culex* (Micr.) *retrosus*; 342. *Culex* (Micr.) *fuscatus*; 343. *Culex* (Micr.) *intermedius*; 348. *Culex* (Micr.) *reducens*; 366. *Culex* *pallipes*; 367. *Culex* *molestus*.

## MATO GROSSO

Acampamento dos Morros Azues: 195. *Coquillettidia* (R.) *hermanoi*.

Boa Esperanca (see also Pocinho): 109. *Wyeomyia* (W.) *leucotarsis*.

Coronel Ponce: 212. *Uranotaenia* *burkii*; 265. *Culex* (C.) *abnormalis*.

Cuiaba: 124. *Wyeomyia* (D.) *cesari*; 128. *Wyeomyia* (D.) *kerri*; 135. *Wyeomyia* (D.) *brucei*; 136. *Wyeomyia* (D.) *rooti*; 137. *Wyeomyia* (D.) *delpontei*; 139. *Wyeomyia* (D.) *subcomplosa* [see also Salvador (Bahia); Belem and Currealinho (Para); Sergipe]; 141. *Wyeomyia* (D.) *undulata*; 200. *Coquillettidia* (R.) *shannoni*.

Ladario, on Rio Paraguai: 62. *Anopheles* (N.) *rondoni*.

Lagoa de Mandiore [as Manicore and Mandicore]: 15. *Anopheles* (A.) *matto-grossensis*.

Maracaju: 202. *Mansonia* (M.) *cerqueirai*; 231. *Psorophora* (J.) *lanei*; 236. *Aedes* (O.) *aenigmaticus*; 388. *Lutzomiops* *niger*.

Melguerra, Ribeirao Amolar, headwaters of Rio Paraguai south of Diamantino: 166. *Sabethes* (S.) *longfieldae*; 169. *Sabethes* (S.) *argyronotum*.

Pocinho (see also Boa Esperanca): 109. *Wyeomyia* (W.) *leucotarsis*.

Portinha, Chapada region: 400. *Dixella* *chapadensis*.

Salobra, on Rio Miranda: 371. *Corethrella* *edwardsi*; 381. *Corethrella* *travassosi*;



398. *Edwardsops magnificus*; 399. *Edwardsops unicolor*.

Sao Joao (Fazenda), right bank of Rio Cuiaba: 63. *Anopheles* (N.) *triannulatus*; 64. *Anopheles* (N.) *cuyabensis*.

## MINAS GERAIS

Belo Horizonte: 242. *Aedes* (O.) *lepidus*.

Bicudo(s), Rio: 22. *Anopheles* (A.) *lutzi*; 168. *Sabethes* (S.) *belisarioi*; 203. *Mansonia* (M.) *chagasi*.

Cambuquira: 3. *Chagasia maculata*.

Engenheiro Dolabela: 278. *Culex* (C.) *paramaxi*.

Juiz de Fora and vicinity: 2. *Chagasia neivae*; 43. *Anopheles* (N.) *strodei* (near Agua Limpa station); 177. *Sabethes* (S.) *purpureus*; 196. *Coquillettidia* (R.) *juxtamansonia*; 266. *Culex* (C.) *acharistus* (Agua Limpa).

Lassance and vicinity, Vale do Rio das Velhas: 39. *Anopheles* (N.) *braziliensis*; 69. *Anopheles* (L.) *gilesi*; 284. *Culex* (Mel.) *andricus*.

Oliveira: 28. *Anopheles* (A.) *tibiamaculatus*; 53. *Anopheles* (N.) *nigritarsis*; 61. *Anopheles* (N.) *parvus*.

Uberaba, near Belo Horizonte: 401. *Dixella limai*.

## PARA

Belem (Para) and vicinity: 27. *Anopheles* (A.) *shannoni*; 35. *Anopheles* (N.) *emilianus*; 130. *Wyeomyia* (D.) *luteoventralis*; 139. *Wyeomyia* (D.) *subcomplosa* [see also Curralinho; Salvador (Bahia); Cuiaba (Mato Grosso); Sergipe]; 159. *Limatus durhamii*; 161. *Limatus paraensis*; 170. *Sabethes* (S.) *nitidus*; 178. *Sabethes* (S.) *quasicyaneus* (Utinga); 181. *Sabethes* (*Sabethoides*) *confusus*; 193. *Coquillettidia* (R.) *arribalzagae*; 198. *Coquillettidia* (R.) *lynchi*; 204. *Mansonia* (M.) *indubitans*; 207. *Mansonia* (M.) *titillans*; 217. *Uranotaenia pallidiventer*; 224. *Psorophora* (P.) *scintillans*; 251. *Aedes* (F.) *mediomaculatus*; 260. *Aedes* (S.) *exagitans*; 270. *Culex* (C.) *corniger*; 301. *Culex* (Mel.) *flochi* (Rio Moju); 304. *Culex* (Mel.) *indecorabilis*; 349. *Culex* (Micr.) *shopei* (Utinga); 355. *Culex* (Aed.) *clastrieri*; 356. *Culex* (Anoed.) *belemensis*; 359. *Culex* (Anoed.) *luteopleurus*.

Boa Vista, Rio Tapajos: 56. *Anopheles* (N.) *goeldii*; 89. *Trichoprosopon* (T.) *townsendi*; 220. *Orthopodomyia townsendi*.

Breves: 206. *Mansonia* (M.) *pseudotitillans*.

Cachoeira do Arari, Ilha do Marajo: 31. *Anopheles* (N.) *marajoara*; 33. *Anopheles* (N.) *domesticus*.

Curralinho: 118. *Wyeomyia* (C.) *kummi*; 139. *Wyeomyia* (D.) *subcomplosa* (Rio Canaticu) [see also Belem; Salvador (Bahia); Cuiaba (Mato Grosso); Sergipe]; 261. *Haemagogus* (L.) *tropicalis*.

Guama (Sao Miguel do): 292. *Culex* (Mel.) *contei*.

Gurupa: 201. *Mansonia* (M.) *amazonensis*.

Oriboca, Rio Guajara: 290. *Culex* (Mel.) *mojuensis*.

Paragominas, municipio Capim: 319. *Culex* (Mel.) *rachoui*.

Santarem and vicinity: 100. *Trichoprosopon* (R.) *edwardsianum* (Belterra); 396. *Sayomyia souzai*.

## PARANA

Curitiba: 205. *Mansonia* (M.) *peessoai*.

Iguacu: 52. *Anopheles* (N.) *guarani*.



Londrina: 110. *Wyeomyia* (W.) *limai*; 156. *Phoniomyia neivai*.

### RIO DE JANEIRO (STATE)

Angra dos Reis and vicinity: 326. *Culex* (Mochl.) *megapus*; 338. *Culex* (Micr.) *hedys*; 376. *Corethrella lopesi* (Japuiba).

Baixada Fluminense, coastal lowlands: 29. *Anopheles* (N.) *allopha* (see also Rio de Janeiro, Guanabara); 58. *Anopheles* (N.) *oswaldoi* (see also Vale do Rio Doce, Espirito Santo); 194. *Coquillettidia* (R.) *chrysonotum* (see also Vale do Rio Doce, Espirito Santo); 216. *Uranotaenia argenteopennis* (see also Rio de Janeiro, Guanabara); 295. *Culex* (Mel.) *dyius*.

Cachoeira: 129. *Wyeomyia* (D.) *knabi*.

Chere: 327. *Culex* (Mochl.) *galvaoi*.

Imbarie (Estrella): 21. *Anopheles* (A.) *minor*.

Itaperuna: 12. *Anopheles* (A.) *fluminensis*.

Mage: 104. *Trichoprosopon* (R.) *reversum*; 106. *Trichoprosopon* (R.) *theobaldi*; 131. *Wyeomyia* (D.) *melanoides*; 275. *Culex* (C.) *lygrus*; 298. *Culex* (Mel.) *evansae*; 305. *Culex* (Mel.) *cenus*; 316. *Culex* (Mel.) *oedipus*; 345. *Culex* (Micr.) *microphyllus*; 393. *Lutzomiops nigrescens*.

Mangaratiba: 90. *Trichoprosopon* (T.) *obscurum*; 138. *Wyeomyia* (D.) *shannoni*; 144. *Phoniomyia davisii*; 244. *Aedes* (O.) *perventor*.

Mendes: 114. *Wyeomyia* (W.) *pintoi*.

Orgaos, Serra dos; woods near Rio Soberbo at crossing of railroad from Mage to Teresopolis: 331. *Culex* (Micr.) *aphylactus*; 334. *Culex* (Micr.) *trychnus*.

Petropolis: 75. *Toxorhynchites* (L.) *bambusicola*; 82. *Toxorhynchites* (L.) *posticatus*; 86. *Trichoprosopon* (T.) *compressum* (see also Sao Paulo, Sao Paulo); 117. *Wyeomyia* (C.) *dyari*.

Porto das Caixas and vicinity: 41. *Anopheles* (N.) *darlingi* (Caxiribu); 59. *Anopheles* (N.) *metcalfi*; 146. *Phoniomyia edwardsi*; 154. *Phoniomyia pilicauda*; 294. *Culex* (Mel.) *exedruss*; 351. *Culex* (Aed.) *accelerans*.

Sant'Anna: 320. *Culex* (Mel.) *serratimarge*.

Sao Bento: 11. *Anopheles* (A.) *evandroi*.

Teresopolis: 98. *Trichoprosopon* (R.) *castroi*; 115. *Wyeomyia* (W.) *sabethea*.

Tingua: 167. *Sabethes* (S.) *batesi*; 185. *Sabethes* (*Sabethinus*) *fabricii*; 186. *Sabethes* (*Sabethinus*) *lutzianus*.

Xerem: 13. *Anopheles* (A.) *intermedius* (see also Rio de Janeiro, Guanabara); 25. *Anopheles* (A.) *pseudomaculipes*; 126. *Wyeomyia* (D.) *finlayi*; 191. *Coquillettidia* (R.) *albicosta*.

### RIO GRANDE DO NORTE

Ares, near Sao Jose de Mipibu: 273. *Culex* (C.) *foliaceus*.

Natal, Macaphyba: 277. *Culex* (C.) *oswaldoi*.

### RONDONIA

Porto Velho: 385. *Lutzomiops amazonicus*.

### RORAIMA

Boa Vista: 297. *Culex* (Mel.) *ernanii*; 329. *Culex* (Mochl.) *palaciosi*.

Caracarai: 293. *Culex* (Mel.) *crisovai*; 306. *Culex* (Mel.) *isabelae*; 321. *Culex*



(*Mel.*) *silvai*.

Carmo: 24. *Anopheles* (*A.*) *celidopus*.

San Alberto [?]: 182. *Sabethes* (*Sabethoides*) *glaucodaemon*.

Sororoca: 288. *Culex* (*Mel.*) *bequaerti*.

## SANTA CATARINA

Brusque: 71. *Toxorhynchites* (*A.*) *catharinensis*.

Ribeirao Pequena, municipio Laguna: 9. *Anopheles* (*A.*) *bustamentei*.

## SAO PAULO

Avare, Fazenda Jose Euphrasio: 96. *Trichoprosopon* (*I.*) *luederwaldti*.

Bertioga, municipio Santos: 269. *Culex* (*C.*) *carcinoxenus*; 344. *Culex* (*Micr.*) *lanei*.

Bocaina, Serra da; Fazenda do Bonito: 256. *Aedes* (*F.*) *oswaldi*.

Boraceia, municipio Salesopolis: 268. *Culex* (*C.*) *brami*.

Cabreuva: 243. *Aedes* (*O.*) *pennai*.

Campos do Jordao and vicinity: 34. *Anopheles* (*N.*) *antunesi* (Emilio Ribas); 49. *Anopheles* (*N.*) *lanei* (Emilio Ribas); 68. *Anopheles* (*K.*) *laneanus* (1600 m); 105. *Trichoprosopon* (*R.*) *simile*; 142. *Phoniomyia antunesi*; 384. *Lutzomiops alticola* (1700 m); 404. *Dixella wygodzinskyi* (Vila Capivari, 1700 m).

Canaan: 226. *Psorophora* (*J.*) *albigenu*.

Cantareira and vicinity: 51. *Anopheles* (*N.*) *niger*; 134. *Wyeomyia* (*D.*) *personata*; 184. *Sabethes* (*Sabethinus*) *aurescens*; 188. *Sabethes* (*Sabethinus*) *albiprivatus*; 218. *Orthopodomyia albicosta* (Serra da Cantareira); 263. *Haemagogus* (*S.*) *capricornii* (Horto Florestal); 346. *Culex* (*Micr.*) *neglectus* (Serra da Cantareira); 363. *Culex* (*Car.*) *iridescens* (Serra da Cantareira).

Caraguatatuba: 67. *Anopheles* (*K.*) *montemor*.

Casa Grande, municipio Mogi das Cruzes: 70. *Anopheles* (*L.*) *pseudotibiamaculatus*; 370. *Corethrella cardosoi*; 386. *Lutzomiops barretto*.

Cubatao: 213. *Uranotaenia geometrica*.

Cubatao, Serra do: 162. *Limatus flavisetosus*.

Diabo, Serra do; rio Cuiaba, municipio Venceslau: 145. *Phoniomyia diabolica*.

Franca: 253. *Aedes* (*F.*) *leucomelas*. See also Rio Grande.

Guaratingueta: 55. *Anopheles* (*N.*) *ayrozai*.

Guaruja and vicinity: 10. *Anopheles* (*A.*) *geometricus*; 36. *Anopheles* (*N.*) *guarujaensis*; 148. *Phoniomyia galvaoi* (Parada 24 de Outubro); 151. *Phoniomyia lopesi* (Parada 24 de Outubro).

Itaici (Estacao de): 123. *Wyeomyia* (*D.*) *bourrouli*.

Itapura, Rio Tiete immediately above: 234. *Psorophora* (*G.*) *scutipunctata*.

Jaragua: 391. *Lutzomiops lutzi*.

Juquia and vicinity: 199. *Coquillettidia* (*R.*) *neivai*; 214. *Uranotaenia mathesoni*; 369. *Corethrella bromelicola* (Poco Grande); 372. *Corethrella flavitibia*; 374. *Corethrella infuscata*; 377. *Corethrella pillosa* (Poco Grande); 378. *Corethrella selvicola*; 382. *Corethrella vittata*; 389. *Lutzomiops iridescens*; 390. *Lutzomiops juquianus* (Poco Grande); 395. *Sayomyia antunesi*; 403. *Dixella torrentia* (Salto do Poco Grande).

Lagoa: 309. *Culex* (*Mel.*) *lugens*; 322. *Culex* (*Mel.*) *theobaldi*.

Lorena: 44. *Anopheles* (*N.*) *ramosi*.

Lussanvira: See Pereira Barreto.



Mirassol: 108. *Wyeomyia* (W.) *downsi*.

Palmeira: 379. *Corethrella striata*; 387. *Lutzomiops coutinhoi*.

Pereira Barreto (Lussanvira, Novo Oriente): 42. *Anopheles* (N.) *paulistensis*; 54. *Anopheles* (N.) *noroestensis*.

Perus: 364. *Culex* (Car.) *soperi*; 373. *Corethrella fulva* (Agua Fria).

Ribeirao Preto: 285. *Culex* (Mel.) *aureonotatus* (Fazenda Monte Alegre); 289. *Culex* (Mel.) *bifoliolatus* (Fazenda Monte Alegre); 325. *Culex* (Mel.) *trilobulatus* (Rio Tamandua).

Rio Grande, near Franca: 250. *Aedes* (F.) *fluviatilis*; 252. *Aedes* (F.) *tripunctatus*.

Rio Paraiba do Sul, valley of: 45. *Anopheles* (N.) *arthuri*; 46. *Anopheles* (N.) *artigasi*; 47. *Anopheles* (N.) *albertoi*.

Santa Cruz do Rio Pardo: 274. *Culex* (C.) *forattinii*.

Santos: 225. *Psorophora* (P.) *genumaculata*.

Sao Paulo and vicinity: 1. *Chagasia fajardi*; 4. *Chagasia stigmopteryx* (Butantan); 6. *Anopheles* (S.) *lineatus*; 8. *Anopheles* (A.) *anchietai* (Cangaiba); 14. *Anopheles* (A.) *maculipes*; 17. *Anopheles* (A.) *mediopunctatus*; 30. *Anopheles* (N.) *limai* (Pinheiros and Butantan); 40. *Anopheles* (N.) *pessoai* (left bank of Rio Pinheiros, Pinheiros); 74. *Toxorhynchites* (A.) *neglectus*; 79. *Toxorhynchites* (L.) *solstitialis*; 80. *Toxorhynchites* (L.) *chrysocephalus*; 86. *Trichoprosopon* (T.) *compressum* (see also Petropolis, Rio de Janeiro); 91. *Trichoprosopon* (T.) *pallidiventer*; 94. *Trichoprosopon* (S.) *fluviatile*; 95. *Trichoprosopon* (S.) *longipalpis*; 107. *Wyeomyia* (W.) *arthrostigma*; 113. *Wyeomyia* (W.) *oblita* (Pacaembu); 116. *Wyeomyia* (W.) *serrata* (Rio Frio, Pindamonhangaba); 120. *Wyeomyia* (M.) *leucostigma*; 125. *Wyeomyia* (D.) *confusa* (woods near); 158. *Phoniomyia tripartita*; 163. *Sabethes* (S.) *albiprivus*; 164. *Sabethes* (S.) *albiprivatus*; 187. *Sabethes* (*Sabethinus*) *intermedius* (near); 192. *Coquillettidia* (R.) *albifera* (Rio Pinheiros, Butantan); 197. *Coquillettidia* (R.) *hypocindyna*; 208. *Mansonia* (M.) *wilsoni*; 211. *Uranotaenia ditaenionota*; 229. *Psorophora* (J.) *arribalzagae*; 238. *Aedes* (O.) *crinifer*; 264. *Culex* (L.) *brasiliae*; 271. *Culex* (C.) *deanei* (Campo de Marte, Santana); 272. *Culex* (C.) *bilineatus*; 280. *Culex* (C.) *renatoi* (Bairro Sao Miguel Paulista); 281. *Culex* (C.) *spinosus*; 299. *Culex* (Mel.) *fasciolatus* (wooded mountains near); 302. *Culex* (Mel.) *humilis*; 303. *Culex* (Mel.) *inadmirabilis*; 310. *Culex* (Mel.) *nigrescens* (Santo Amaro); 314. *Culex* (Mel.) *ocellatus*; 339. *Culex* (Micr.) *imitator*; 347. *Culex* (Micr.) *pleuristriatus*; 394. *Sayomyia braziliensis*; 402. *Dixella paulistana* (Campo Experimental da Agua Funda).

Sao Vicente: 19. *Anopheles* (A.) *limai*; 20. *Anopheles* (A.) *costai*.

Tabatinguera: 350. *Culex* (Micr.) *worontzowi*.

Vera Cruz: 32. *Anopheles* (N.) *imperfectus*.

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Locality not specified: 139. *Wyeomyia* (D.) *subcomplosa* [see also Salvador (Bahia); Cuiaba (Mato Grosso); Belem and Curralinho (Para)].



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